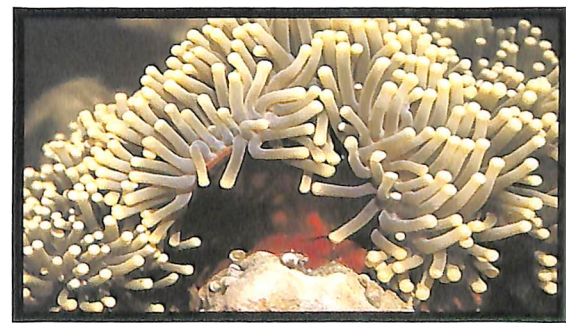


THE JARAWA TRIBAL RESERVE DOSSIER

Cultural & biological diversities in the Andaman Islands



United Nations
Educational, Scientific and
Cultural Organization

A dossier prepared by Kalpavriksh
Edited by Pankaj Sekhsaria and Vishvajit Pandya

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Forewords

The UNESCO Local and Indigenous Knowledge Systems (LINKS) Programme may be small in size but its scale is international and global, because indigenous communities and indigenous knowledge are present in all parts of the developing and the developed world. The knowledge embodied in these communities is clear evidence of societies and groups of people who intuitively and consciously work in active dialogue with the natural and biological environment of their habitat. This is as true of those who live in proximity to the sea-scape and those who live in deserts or forests, or the higher regions of mountains, snow-scape and glaciers.

While the symbiosis of culture and nature is fundamental to all such communities throughout the world, distinctiveness of understandings, as well as mechanisms for regulating the environment, foster specific and unique characteristics.

The LINKS Programme has rendered an invaluable service by bringing out earlier monographs, specially on 'Fishers' Knowledge in Fisheries Science and Management' and 'Reef and Rainforest: an environmental encyclopedia from Marovo Lagoon, Solomon Islands'.

In this dossier the focus is on the Jarawas of the Andaman Islands, who represent a small but extremely important group. Their locale has had a history of many centuries, which has intersected with the colonial presence, independent India, other indigenous groups and much else. Fundamental is the incomparable richness of the diversity of their lands, of botanical species, species of fauna, not to speak of the richness of marine life in the waters that surround the islands, fringed by coral reefs, sea grass beds and shoals.

The articles in this volume present details of the richness of the area, the diversity and the importance of the flora, fauna and aquatic life. Some of these articles should be eye-openers for those who are conscious of the threat to many of these species. This discourse is educative in recognizing that the Jarawa and their livelihoods are commensurable with high biological diversity and ecological balances.

The Jarawas however have had a history of occupying spaces, without being fixed in place. The editors as also other contributors have repeatedly brought to the fore the very complex issues of hostile borders, and the intricate issues of territory around the area identified by outsiders as 'the Jarawa Reserve', an entity not necessarily recognized by the Jarawa themselves. The articles make most engaging but somewhat disturbing reading. Within the Local and Indigenous Knowledge System Programme of UNESCO it will no doubt be a valuable addition in continuing the debate on the rich knowledge base of indigenous populations of the world.

However, how does that knowledge get communicated? Through worldviews, knowledge systems and most importantly language. The threat to indigenous peoples and their cultures is also a threat of extinction of the priceless resource of the diversity of oral languages.

The United Nations has declared the rights of indigenous peoples. This is a most welcome and important step. However, it remains to be seen whether the voice of communities like the Jarawas can be heard at international fora, or indeed national fora. It is my fervent hope that volumes such as this will oblige UNESCO to give greater attention to considering the role of indigenous peoples in their programmes, both the Natural Sciences as also the Culture Sector.

*Dr. Kapila Vatsyayan
Member, UNESCO Executive Board
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The prominence of indigenous peoples and their issues in the mandate and activities of the United Nations Educational, Scientific and Cultural Organization (UNESCO) continues to rise. Most recently, they have been identified as a priority group for UNESCO action in the Organization's Medium-term Strategy from 2008 to 2013. Among numerous actions taking place with indigenous peoples under UNESCO's banner, the Organization's Local and Indigenous Knowledge Systems (LINKS) Programme focuses in particular on issues relating to indigenous knowledge systems, and their important role with respect to biodiversity conservation, climate change, natural disaster management and sustainable development.

The LINKS Programme contributes to a growing field of research and action on interlinkages between biological and cultural diversities. Perhaps nowhere are these connections better highlighted than in the Jarawa Tribal Reserve in the Andaman Islands of India. The Jarawa Reserve is an area of exceptional biodiversity, boasting a wealth of flora and fauna. This has been maintained largely due to the presence of the Jarawa, the indigenous inhabitants of this tract of land. Until recently, the Jarawa have been fiercely hostile to any outsiders. As a result, those who might otherwise have exploited the resources of the reserve – poachers, settlers and developers - have been denied access. However, a recent change in Jarawa relations with the outside world now threatens the integrity of the reserve. The Jarawa have decided to end their voluntary isolation and to mix more freely with outsiders. The previously hostile borders of the Jarawa reserve have become open to intrusion. This has enormous implications for both the biodiversity of the reserve and the Jarawa themselves.

It thus becomes crucially important to understand the complex interactions between the Jarawa, their environment, and the increasingly intrusive cultures surrounding the reserve. Only through an interdisciplinary approach can such linkages be understood, and perhaps to some extent managed. For this reason UNESCO LINKS has worked with Kalpavriksh in India to collect and compile the disparate and scattered sources of information on the Jarawa Tribal Reserve within a single volume, so that the rapid evolution of the complex interlinkages described above can be better comprehended. The next step will be to determine a promising way forward, with the Jarawa themselves empowered to be full partners in the process.

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Introductory note



One of the most distinctive, but relatively little known aspects of the Andaman Islands is an entity of land and sea called the Jarawa Tribal Reserve – a space legally notified in the name and, presumably, the interests of the Jarawa tribal community within it.

A unique space

It is a unique place constituted of many diverse elements – the tribals, non-tribals, a diversity of natural species, power authorities and the forces of development that confront each other at various levels. Historically too, from colonial times to the present, this space has seen a number of expeditions, surveys, and investigations. Much of the information that has been gathered and formulated remains scattered and unavailable. An integrated reading of the discourses relating to culture and relating to the area's natural wealth, in order to understand the issue of policy, welfare, conservation and history, has rarely happened, if ever. The issues related to the Jarawa Tribal Reserve (JTR) are not those of just protecting the indigenous peoples or the natural diversity within the place designated to the Jarawas. They are also about the often complex relationships and issues that surface over a period of time and importantly, about the 'reserved' space itself. What is reserved, for whom and how?

Spread over a little more than 1000 sq. kms (Map I and II) of forests in South and Middle Andaman islands (and also about 500 sq. kms of sea along its western coast) the JTR is, critically, a forestscape that is home to the Jarawas. These are forests that the Jarawa community have lived in for many 1000s of years and these are also forests that the Jarawas, until recently, defended aggressively, preventing the 'outside world' from entering, zealously protecting the forests and all the resources within.

A multi-layered entity

The Jarawa Reserve is many things rolled into one at the same time. It is home to the Jarawas and at the same time home, perhaps, to the best and last of the remaining original forests that once clothed this entire group of islands (See Maps VIa, VIb & VIc). It is a space that ecologists see as a critically important repository of the islands' biological diversity; it is an internationally recognized Important Bird Area and it is home to a host of critically endangered and endemic species of plants and animals including the Andaman wild pig, the saltwater crocodile and the Andaman day gecko. It is a space with multi-layered histories, occupied earlier in part by the Great Andamanese community, and one that is now claimed by many others; primarily the state and the settlers from mainland India that have been brought here in their thousands over the last few decades.

Contested spaces

All territories and assigned boundaries, it can be argued, are contested spaces. What varies is the intensity and nature of the contest and conflict. Even within spaces, what dominates is change; changing contexts, changing histories, changing geographies and consequently changing contests and conflicts. There are also fundamental questions of who determines and notifies boundaries, for whom and for what purpose. Who respects them and why? Who enforces them? How do they change? The area notified at the Jarawa Tribal Reserve is no different.

In recent years, the Jarawas and their territory (as designated by outsiders) have been at the center of many seminars, discussions and processes. They have been the subject of newspaper reports, research papers, books, government committee investigations, civil society activism, national and international scrutiny and even legal intervention. The reasons for this increased interest and activity are varied and complex, extremely fascinating and provocative at the same time. There have been and continue to be efforts at understanding this better. Meanwhile, and there can be no denying this, the Jarawas and the forests on which they depend for their existence are being increasingly compromised.

The question before everyone is a rather simple and evident one – What is it that needs to be done? The answer/s, of course are neither evident, nor simple, if they exist at all. People dealing with the situation; the administrators, researchers, and the activists, are all grappling with a situation that is highly complex.

Why this dossier?

This effort of the Jarawa Tribal Reserve Dossier is a partial attempt, a very small one indeed, to deal with precisely this grappling. It was initiated with a simple objective – to become a tool in the hands of all those who are looking at the situation of the Jarawas. There are, as discussed, multiple dimensions to the notion of the Jarawa Tribal Reserve – the legal, the administrative, the anthropological, the ecological and the historical. There are the views of the various players – some articulated like those of policy makers, researchers and activists – some unarticulated like those of the Jarawas themselves. Looked at in the reverse, it can be argued that these articulations and non-articulations actually create for us the Jarawa Tribal Reserve.

Circumstances of the present and the tyranny of time also means that decisions about the Jarawa Reserve have to be continually made, understandings have to be articulated and positions taken. For all these and more, what is critically needed is information about the space in question. Providing this information is primarily the task that the Dossier has undertaken – to bring together within the covers of one publication, multi-disciplinary information and views about the JTR. This will bring out

the importance of approaching the JTR with the sensitivity of an interdisciplinary perspective that is essential for addressing issues both internal and external to the JTR, and their complex interlinkages.

What you see here, then, is a conglomerate of outcomes, each one itself the outcome of the prolonged involvement of the individual contributors.

The constituents

The Dossier is divided into four broad parts.

1) The first provides anthropological, cultural and social insights including those on the notion and perceptions of territory in the context of the Jarawa. We also include a series of papers on the hardly studied and still undocumented biological diversity of the Jarawa Tribal Reserve.

The context in which this dossier was conceptualized was one in which we found that there was no single comprehensive source of information and perspective about the Jarawa Tribal Reserve. The main attempt here has been to identify 'existing' material that was relevant and could be put together. A few papers were commissioned for this project, but these are in the minority.

One significant implication of choosing to use existing material was that we, as editors, did not have the liberty to make any changes in these papers (though we have made some very basic language and grammatical changes in a few places without in any way changing the meaning of the intention of the original paper).

It is quite likely, therefore, that information in the dossier is repeated (each paper seeks to be complete in itself and therefore provides certain basic information that then appears in other places too); appears inconsistent and sometimes, internally contradictory as well. This is partly because these papers were published at different times in the last few years. They therefore reflect the knowledge of that particular situation and time, rather than the present.

It has been a conscious choice to let these apparent problems be. We have not made any effort to harmonise the divergent points of view. We feel it adds to the value of the document as it reflects the evolution of information and understanding over a period of time, articulates the differences and opinions about the issue and importantly echoes the situation on the ground which is, itself, full of inconsistencies and contradictions. This, in fact, is the complex maze through which a way forward has to be negotiated. The dossier had to reflect that.

Who are the Jarawas and what is so unique about them?

Vishvajit Pandya, August 2007

We have known of the Jarawa tribal groups in the forests of South and Middle Andaman Islands since 1857. The Jarawas remained hostile hunter-gatherers and resisted other tribal groups (mainly Great Andamanese) on the islands as well as the British colonizers who arrived on the islands since 1858. In spite of the steady increase of settlers on the island in post colonial times as the islands became a Union Territory of India the Jarawas continued to resist, often through open hostility, any sustained contact with the outside world. Settlers or outsiders since early colonial times were consequently afraid to enter and exploit the forests inhabited by the Jarawas, allowing them to remain in isolation. The Government of India also took care to a certain extent to protect this isolation of the 350 Jarawas, by marking them as a 'Primitive Tribal Group' and locating them within the 765 km² of forest designated as Jarawa reserve territory, which primarily restricted entry of non-tribals.

Jarawa hostility towards outsiders came to a gradual end in 1998–99, however, when the Jarawa came into close sustained contact with the outside world of their own volition. Since that time the Jarawa community has changed rapidly. Instances of Jarawa begging for food along the Andaman Trunk Road (ATR), 35 km of which cuts through the restricted Jarawa Reserve Territory, have become common. Jarawa have also taken up new technologies, for example many now use matches and match boxes to light fires, and claim not to remember how to make fires by other methods. Carrying plastic bags also now seems easier than weaving baskets

to carry food resources gathered in the forest. The Jarawas have also been inexorably drawn into the structures of modernization through policies of welfare provided by the nation state. These include among others the provision of medical care for diseases contracted through outsiders (Pandya 2005). As a result older Jarawa report regret that their youth would rather rely on outside assistance than carry out traditional practices in the forest. Furthermore, the growing perception of the Jarawa as being 'friendly' or 'non-hostile' has made the biologically rich Jarawa reserve territory much more susceptible to intervention and illegal exploitation by outsiders, increasing pressure on the natural resources of the area and the Jarawa.

These changes have encouraged settlers and politicians to conceptualise a rapid shift of Jarawa livelihoods from hunting to cultivation and eventual participation in industrialized capitalist production. The benefits of schooling for Jarawa children have also been postulated. The expectation is that Jarawas, assisted by welfare agencies, would be pushed on an accelerated track of transformation (Cf Awaradi 1990: 146–180, Naidu 1999). The counter argument, which has not been very strong, insists on the need to insulate the Jarawas from outside contact or exploitation, conserving and preserving the Jarawa culture as endangered 'national heritage' and the Jarawas as 'primitives' struggling for survival in the rapidly depleting rain forests. But what the Jarawa's perception is of their future has never been enquired, and nor have they been in a position to articulate their wishes.

2) We then have the compilation of the Annexures, a set of legal and administrative documents that define the tribal reserve and the issues surrounding them. This includes, among others, documents like the 'Andaman and Nicobar Protection of Aboriginal Tribes Regulation – 1956', (Annexure I) which along with its various amendments and notifications creates the framework at the centre of this dossier, the Kolkata High Court approved 'Policy on Jarawa Tribe of Andaman Islands' (Annexure II) and the rules of the Andaman Janjati Vikas Samiti (AAJVS) (Annexure III), the Andaman Tribal Welfare Agency.

3) We also include recommendations and suggestions for future action based on our understanding of the situation on the ground.

4) Finally, there are also a series of maps of the Jarawa Reserve, giving us a satellite view of its various aspects. This is perhaps the first time that such a detailed mapping of the Jarawa Tribal Reserve has been attempted and we hope this will add to understanding its various dimensions. Embedded within the exercise of mapping are multiple layers of power and politics. This is how 'we' see the space that is inhabited by the Jarawa. Visual representation is perhaps one of the easier tools of communication across cultures and communities and there are many questions that come to mind. How do the Jarawas perceive their space? What mental and pictorial maps do they themselves have of their territory? How will they relate to 'our' maps of 'their' lands, forests and resources?

It is intended that the dossier, which is by no means complete and exhaustive, would have something of interest and relevance for all, irrespective of interests and orientation. The attempt is to sensitise those interested to a context in which various dimensions of nature and culture intersect and form a complex tapestry that cannot have a simple policy for import and / or imposition.

Hopes for the future

One hopes that readers will try to seek solutions and steps, and formulate perspective and proposals based on the ground reality, with ideas emerging from the complex context of JTR itself. The notion of 'protection' is also one that needs serious and critical consideration, keeping in mind the powerful forces of history and the political economy. What is it that is going to be protected and how, needs to be seriously reflected upon and one hopes that this document will facilitate this process.

In conclusion

A number of people have contributed to this document and helped in numerous other ways, beginning of course with UNESCO, who agreed to support a project of this nature. We are extremely grateful to all of them, and hope they find that the final product has done justice to their efforts, time and energies. For any errors or mistakes that have crept in, the responsibility is entirely ours.

It can also never be our claim that the information included in the Dossier is complete or comprehensive. The gaps and inconsistencies, in fact, indicate the need for more systematic and detailed work. We shall look forward to hearing from readers with their comments, their suggestions and their critiques. Unlike a text that completes its life once it is out and printed, we hope that the evolution of this one will continue with the new additions of ideas and information. Our intention here has been only to provide a stage from which the much needed intellectually intense scaffold of ideas can be built upon for the future drama of history; where we all learn from the mistakes of the past in order to create what might be considered a more sensitive and wholesome future.

Pankaj Sekhsaria & Vishvajit Pandya

Perspective & opinion





1 Colonization and conflict resolution in the Andaman Islands: learning from reconstruction of conflict between indigenous and non-indigenous islanders

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During the year 1789, when the erstwhile British East India Company decided to set up a colony in the Andaman Islands, hostility from the native islanders was an issue they had been forewarned about and were ready to confront, or so they thought. After this first unsuccessful settlement then, the next and final attempt in 1858 was successful from the point of view of the colonizers. The diligent records of many British officers describe the hostile resistance of the inhabitants, their placation, and colonization of the islands, as they were experienced through explorations. Attempts to resolve the violence and conflict during the pioneering days of colonization, and also after that, were through reprisal and the establishment of friendly relations. These have largely been the policy of governments and visitors to such exclusive ethnic territories the world over. The case of the Andaman Islands has been no different.

In the Andamans, it was less than half a century after the establishment of the penal colony in 1858 that a slow but sure understanding of how the policy of establishing friendly relations had gone awry.¹ Indigenous islanders were dying with many introduced diseases, whole tribal groups amongst the enumerated groups of Andamanese were extinct and the few remaining were stricken with substance abuse and cultural decimation or dependence on 'Andamanese Homes'.² After Indian independence and the inclusion of the islands within the Indian union, tribal welfare policies were drawn to 'develop' and provide autonomy to indigenous groups in the islands. The most significant contribution was the recognition of large tracts of land for some tribes as exclusive tribal territories. Ever fluctuating degenerate notions about the indigenous tribes in the Andamans by continually changing administrators however countered this gesture. This eventually led to moonlighting expeditions by the Andaman administration to establish friendly relations all over again through 'contact missions'. The lessons that were learnt during the early days of colonization were seemingly forgotten. Through this article I use the term 'conflict' in a thematic sketch of ethno genesis, hostile resistance, and articulations of power, friendship and perceptions of the word in the context of colonization and cultural identity that may be tenuous for some readers.³ The predominant background in the sketch is that of the colonized and colonizer, dichotomous around an axis of social identity. I use the term 'social identity' here to refer to the many ways that individuals and groups of people are taxonomically categorized through socially constructed relationships of difference.⁴

1 See Portman, M.V. 1899. *A history of our relations with the Andamanese. Compiled from histories and travels and from the records of the Government of India, Vol I & II.* Government press Calcutta. Reprint by Asian Educational Services, 1990, New Delhi.

2 Andamanese Homes were established in the early days of colonization to acculture and 'tame' the wild and forest dwelling habits of the hunter-gatherer lifestyle that the Andamanese employed. A modern day version is the tribal settlements in the Andamans, which attempt similar objectives painted in colours of tribal welfare, poverty alleviation and developmental programs by the state.

3 The responsibility is mine if opinions of readers do differ; moreover the culture-contact process in the islands has to be understood through its history of colonization.

4 Voss, B. 2005. 'From Casta to Californio': Social identity and the archaeology of culture contact. *American Anthropologist*, September 2005, Vol. 107, issue 3.

Establishing friendly contact to avoid conflict

Some of these socially constructed notions of difference are largely perceptions on race, intelligence and the inability to comprehend the diversity of economic systems employed for human livelihood. Attempting to bridge these differences that also led to hostile conflict in the Andaman Islands was experimental and aimed at reducing such conflict through overtures of friendship. Methods to resolve such conflict had not changed over the centuries; red cloth, buckets, mirrors, beads and other curiosities of the modern world were gifted to the indigenous inhabitants in an attempt to win over their sensibilities. Later, during the recent 'contact missions' these gifts were short-listed to include bananas and coconuts – articles of food that were inexpensive, easy to come by and seen by the contact parties as significantly more endearing to a group of hunter gatherers in their routine search for sustenance. While all this happened, the very source of their sustenance, forested land and its resources, were colonized to settle refugees and people from mainland India, and find financial profit through the sale of timber to justify the existence of a settlement and an industry. With well recorded experiences of the colonizers of the Andamans and a history of civilizations the world over, there is every reason to wonder if the remaining Andaman islanders will survive the way they want to. Experiments at civilizing the 'primitive islanders' into 'civilized islanders' have failed and have resulted in the extinction of nine groups of Andaman Islanders, with the remnants of some tribes being dependent on external assistance to survive in a modern society that enveloped their ancestral home.

Transformation and social welfare

Two groups of Andaman Islanders who have been consigned to such an existence are those referred to as Great Andamanese⁵ and the Onge of Little Andaman Island. The 'Great Andamanese' or rather Strait Islanders were settled on Strait Island during the 1950's, after a few members of various groups were found living at different places, cut off from the rest of society and pushed to the edge of their former existence. They survive, today, on governmental rations that are supplied through the Department of Tribal Welfare. As the policy was to assimilate the community and provide assistance, they were recipients of various altruistic measures that they welcomed but ultimately became dependent upon. The chance of their survival in the absence of this dole is now questionable. The only articles that they are able to forage and hunt for are fish, a few spotted deer on the island, and money and rice beer/alcohol from the settlements of other colonized communities.

5 Actually a handful of descendants from the Jeru/Yere tribe of northern Middle Andaman and single individuals of other tribes, and not the Great Andamanese of before – a conglomeration of nine tribal groups across the entire Andaman archipelago.

The Onge were similarly contacted through gift giving during the 1890s. After it was decided to settle refugees on their island during the 1960s, regions in their forests were cleared and they too were settled at two localities where they were found in some numbers. Here again from an outsider's perspective, there were two paths: either to remain nomadic, or become sedentary and receive external assistance. The overt efforts at 'civilizing the savage' had their effect and for the past many years the Onge are also being supplied governmental rations. Though traditional food sources were hunted or gathered by systematic movement within the confines of their own chosen spaces on the island, with colonization and the reduction in their numbers they face intense competition from settlers in their hunt for wild pigs. They have also become sedentary and only rarely move out of their settlements. Their two settlements at the geographical extremities of Little Andaman Island allow only a semblance of their former living standards as the only indigenous inhabitants of the island. They too have not been able to integrate with the invasive settler society on equal terms. Governmental assistance is not just restricted to the supply of food rations and other articles of modern living but also in the creation of an atmosphere conducive to sedentary life as is being experienced by nearly two generations of Onge.

The other two groups of indigenous Islanders, the Jarawa and the Sentinelese, continue to live life more or less on their own terms with the possibility of violent reprisal if unwarranted behavior of the outsider demands it, except that the Jarawa have been the recipients of intense efforts over many decades to bring about friendly relations. These efforts have proved fruitful from the perspective of the gift giver in achieving 'control' over the resistance and offensive attitude of the Jarawa in the past; similarly some Jarawa have expressed a view that they finally can live without the fear of the gun of the outsiders and Police. The hostile resistance of the Sentinelese and distance of their island from the main archipelago have allowed them to pursue their life in much the same way that they have over the past centuries.

The Jarawa and 'conflict'

With the Jarawa of South and Middle Andaman Islands, conflicts with outsiders began with the birth of the penal settlement in 1858. As the colonizers were on friendly terms with the enemy of the Jarawa, the Aka-Bea-Da,⁶ all non-Jarawa were enemies. This hostility continued till the Andaman Administration experienced a placebo⁷ of sorts in 1998. After years of 'contact missions' with gifts being exchanged and curiosities satiated, the Jarawa seem to have struck a truce with the rest of the population of the Andaman Islands. Interestingly their hostility had increased

with the many inroads being made into their habitat. A series of 'Jarawa incidents' (Annexure VII) documented, as criminal records⁸ of police outposts strewn along the Jarawa Reserve border indicate that they detested any intrusion. A scrutiny of the documentation⁹ also reveals a trend in increased contact through foraging raids on plantations of banana and coconuts of settlers, and also for metal articles of use. This was influenced by the regular trend of supplying them coconuts and bananas during the 'gift giving' Jarawa contact missions from the 1970s through the 1980s and all the way until 1999. The first three quarters of this period can be understood to be responses to the gift giving missions and the construction of the Andaman Trunk Road, which was completed by about 1989.

A trend towards the latter half of this period is also distinguished by the detailed description of articles by settlers, lost to 'Jarawa raids'. By this time settlers were compensated for such losses in cash or kind to pacify their resentment – akin to the human-wildlife conflict resolution methods adopted in mainland India. In this process of conflict between settlers and indigenous islanders, no record exists of crime against the Jarawa.¹⁰ In contrast, the Jarawa today are seen¹¹ on the roads that pass through their forests, utilizing the opportunity to forage food from the kind sentiments of the passersby. This cessation in hostility has brought a windfall for the poachers of natural resources.¹² With settled and encroached areas¹³ being deficient in wild resources due to over exploitation, poachers turn to places such as the Jarawa Reserve to source such goods for economic benefit. Significantly, they use the same process of gifting food and other articles that may be demanded by the Jarawa. The Jarawa Reserve, being a repository of biological wealth that was preserved by the hostility of its inhabitants, is a rich treasure trove that will be exploited by poachers from Middle and South Andaman if not checked in the future. This is not a new phenomenon, but a repetition of what happened with the natural wealth of the Onge on Little Andaman Island during the last three decades.

8 An unpublished account of such incidents spans the period 1945–1998 – Bush Police Crime records, Bambooflat Police Station, South Andaman.

9 See 'A compilation of various incidents recorded from various sources related to the Jarawa.' (Annexure VII)

10 A law promulgated by the Andaman & Nicobar Administration in 1956, 'The Protection of Aboriginal Tribes Regulation' (ANPATR 1956), has remained a law that has not been implemented on many fronts since its inception.

11 'Seeing' a Jarawa before 1998 was a rarity, and only experienced by those on contact missions or those who were under attack. Their emergence in 1998 from the forests gave rise to conflicting theories of food scarcity, the pressures of disease and ill health, and outcome of the contact missions among many other view points. A version from the Jarawa themselves as a historical rendition of their relationship with the colonizers resolved this theorizing; they were curious about the other people on the island.

12 See Andrews, H.V. 'Impact assessment around the Jarawa reserve, Middle and South Andaman Islands', and Chandi, M. 'Territory and landscapes around the Jarawa reserve'. In *Proc. The Jarawa, Contact and Conflicts*, 2–5 Nov 1999, Anthropological Survey of India, Andaman & Nicobar Regional Centre, Port Blair, Andaman's.

13 Encroached regions within protected tribal forested and urban areas abound in the Andaman's and have never been brought under control. The pressure on natural resources is under stress from an over populated island economy that is largely dependent on exports from the mainland for resources.

6 One of the tribal groups first contacted by the British after 1858.

7 This refers to the famous acculturation of Enmei, the young Jarawa man who was captured after he broke his leg during a raid at a plantation in Middle Andaman and the subsequent turn-around in Jarawa hostility in 1998. His subsequent release set the stage for the current phase of truce and change.

Jarawa incidents (Annexure VIII)

For many years, 'Jarawa incidents' were viewed with dread and deterred many poachers, except those determined or well acquainted with the techniques of poaching in Jarawa territory. The Jarawa developed means to ward such intruders by setting up look out posts at communal hutments.¹⁴ Later, with forestry operations invading their territory and the increasing number of poachers usurping their resources, the Jarawas began placing the thorny spikes of the stingray, *Dasyatis sp.*, onto pathways to deter poachers. Attacks on settlers while poaching, at settlements, at work and occasionally while travelling on the Andaman Trunk Road (ATR) were means of conflict resolution by the Jarawa, directed to deter intrusion into their private space.

In contrast the events that led to an increase in 'Jarawa contact' over the last few years of the previous century were the culmination of 'contact missions' pursued with vigor from 1974 to enter the space that the Jarawa seemed to be protective of. These 'contact missions' were the means of conflict resolution adopted by the non-indigenous islander community.

Much before the 'contact missions' period, a Bush Police network was established around settler colonies and Jarawa habitat to reduce both the visibility of the Jarawa and thus reduce the conflict, as well as to protect the region used by the Jarawa. This worked only for the initial period when the Bush Police was in its infancy. Eventually, however, the Bush Police themselves started poaching Jarawa resources.

The Bush Police patrols were an intrusion into the Jarawa space and led to armed conflict; rifles against bows and arrows. Early morning attacks on Bush Police outposts have been recounted by former Bush Policemen with a fear, they say, they will never forget.¹⁵

Such conflict also gave rise to varied strategies of survival. Some poachers interviewed in the course of earlier fieldwork talked of their strategies for avoiding and resolving conflict; spending the daytime up in trees, taking off all clothing, the use of dogs to warn them of Jarawa presence, the use of firecrackers to scare away Jarawa by those who did not possess rifles, burning hutments and shooting to kill with handmade or licensed rifles.

These were strategies employed in the past by the non-Jarawa to ensure their survival during incursions into Jarawa territory. The Jarawa, on the other hand, were known not to possess dogs, as they would be noisy giveaways. They had on some occasions ambushed hunting parties of non-Jarawas with military precision by surrounding the visitors on all sides. They were also said to track down known offenders to their settlements by observation and to later carry out revenge attacks at night or early in the morning. These often gory and violent incidents that spanned about 140 years are indicative of the singular ob-

jective of survival practiced by the indigene and colonizer.

A strategy¹⁶ in use along the ATR by the Jarawa, after the cessation of hostile behaviour has partially served their purpose of foraging off travelers passing through. This has brought a different sort of conflict between the administrative authorities, settlers and activists over the 'Jarawa issue', or the 'Jarawa problem'. This had partly led to a conflict between activists and the Andaman Administration over the disregard for protection laws and lack of environmental sensitivity, and the court of law was brought into the picture.¹⁷ In the absence of any semblance of order and clear thinking by the implementing authorities, poachers will gain from inaction on the part of administrative authorities that are meant to put protection laws into practice. With the change in impressions from being a '*junglee*' (a savage of the jungle – a local Andaman impression of the term 'Jarawa'), to being at the center of a debate on the future course of action for tribal welfare and island 'development', the Jarawa are sometimes viewed as an inconvenient annoyance standing in the way of future development of the Andaman Islands.

The last seven years

Over the last seven years instances of armed conflict and reprisal have reduced dramatically after congregations of Jarawa visited and made peace with their neighbours. Similarly, settlers along the fringes of Jarawa territory are not wary of Jarawa incursions anymore. They are more amused and express their belief that the Jarawa need to be settled and cultured in the ways of the sedentary world that the settlers understand. Villagers for whom Jarawa visibility in the past was a rarity now practice the method of gifting food and other articles as was accomplished by the Andaman Administration during visits to access resources that were once dangerously available but now have to be bartered and bargained for.

The conflict of the past has seemingly vanished underground and friendly overtures have reduced to the occasional gifting of coconuts and bananas to visiting Jarawa, exchange of goods, the learning of language, and diminishing curiosity. Whereas poaching of wild meat from the Jarawa Reserve has increased manifold, more often than not, poachers attempt to placate the Jarawa with gifts of food, spoons, vessels and other articles they consider appropriate. There are many recent instances of settlers and their hunting parties coexisting with the Jarawa for many days at a stretch.

Though the Jarawa do not always encourage hunting of wild pigs by poachers, there are many instances where they have contributed to the catch as the visit was tinged with varieties of drink, gifts and/or large and generous quantities of food. Recent articulations by settlers of the contact process along the west coast during resource exploitation reveals that they go by the name of 'Mondal' or other common surnames, aimed at avoiding detection

¹⁴ See account of expedition against by the Jarawa by Vaux, P and others in 1921. In 'Remarks on the Andaman Islanders and their country' by Temple, R.C. 1925-1929. *The Indian Antiquary*, the Asiatic Society of Bengal.

¹⁵ This image of the armed and defensive native islander has also been incorporated as a name for a Naval unit based in Port Blair, Andaman Islands, INS Jarawa

¹⁶ See Pandya, V. 'The Jarawas of the Andaman Islands: Their social and historical reconstruction' *Economic & Political Weekly*, 14 September 2002.

¹⁷ Writ petition, No. 048/1999, a PIL filed by Shyamali Ganguli Vs the Union of India & others, in the Calcutta High court.

by other inquisitive non Jarawa, living with the Jarawa and being servile until stronger ties are established.

Friendships by such visiting poachers have been established with some Jarawa groups in the southern (north of Constance Bay), middle (Lekera Lunta and Spike Island campsites) and northern extremities of the Jarawa territory (Flat Island and in its vicinity on the main island of Middle Andaman). Though very few instances of such illegal incursions come to the notice of authorities, those who do indulge in the activity have developed a means based on the practices of the 'contact missions' of the past to resolve possible conflicts of the present. The Jarawa, it should be mentioned, are discerning and are not without judgment as to the means of exchange. They are known to both dissuade visitors and move away further into the interior to avoid confrontation and continue the pursuit of their livelihoods.

Resolving cultural difference through understanding

Ever since the Andaman islanders were described as 'anthropophagi'¹⁸ by early explorers and sailors, they were associated with conflict. Today the conflict that exists on the islands with regard to the future well-being of the indigenous islanders is in many ways beyond their control and largely in the hands of the dominant colonizer society. Over the millennia of evolutionary time, insular societies of indigenous people like the Great Andamanese groups, the Jarawa and Onge have learnt to resolve conflict over resources amongst themselves by strategies of living as hunter-gatherer societies.

This changed after they were colonized. Images of conflict that have found a place amongst non indigenous people with regard to the Andaman islanders move from perspectives of hostility and violence in a conflict for space and natural resources, to its resolution through reprisal and placation. Later these issues confronting the indigenes and colonists transform into a conflict of interests in deciding a future course of action between the implementers and recipients, to a conflict of opinions on policies to be adopted to 'resolve the future' or to create a 'Master Plan' for the indigenous islanders.

The difference between the indigenous islanders and the settlers of the Andamans is a deep chasm that has not been bridged even after 145 years of colonization. The ideological gaps largely stem from socially constructed notions of difference, development and hierarchy. These notions forebode the assimilation of cultures by which the survival of the fittest may be determined. Notions of virtue, however, are sometimes twisted into the developmental ethic whereby decision-making is conducted through master plans or welfare programmes. Other issues confront future islanders in a chaotic model of development that is being experimented with in many areas. The primary concern and limitation in all areas of economic development of the Andaman Islands is limited space and resources. Being island ecosystems heavily dependent on the natural environment for primary

resources such as water and living space, the management of such concerns will not be possible without conservation of limited natural resources through practices of sustainable use for an ever-increasing population in the islands. The indigenous islanders managed such 'problems' by partitioning resources geographically amongst different tribal identities and survived in a changing world by their isolation. Communal or group living in such societies entails the defense of territory and resolving conflict amicably to ensure survival.

This implies avoiding conflict with rivals and collaborating with friends. Living in collaborative groups certainly brings advantages of manipulative behaviour as well as ensuring choice of lifestyle. This can become redundant when scheming behavioral roles and altruism manipulates behaviour with Machiavellian intelligence, which invariably is the case. 'Isolation' as an option toward tribal welfare in the examples from the Andaman's is now increasingly limited, given the history of overtures in friendship and welfare programs. 'Island development' has now become a priority that the indigenous islanders have no control over, but are caught up within a conflict of ideology and power with the non-indigenes. With such ideological and physical space's being colonized and resources being usurped, the resolution of such a conflict confronting the indigenous islanders is increasingly in the hands of the colonizer.

In this scenario, adaptation is one of the first modes that have to be explored, not just with how the indigenous islanders will have to adapt to the outsiders' presence and livelihoods, but rather the other way around too. Flexibility in choices of development is greater in this process of understanding island colonization and development from the perspective of the colonizers, endowed with greater economic flexibility. If, by development we mean greater freedom of choice, then indigenous islanders have to be given those choices in full. These transactions of choice of livelihood between communities such as the Jarawa and the settlement should go beyond the altruistic.

In the continuing race to evolve strategies to mitigate such conflict, there is no clear way of understanding the indigenous islanders in such a hazy and experimental manner. Socio-anthropological inquiry and understanding can provide some means by which an understanding can be brought about for the dominant community to understand groups such as the Andaman islanders, provided it is conducted in all fairness and equality keeping commensurate choices for future well-being of the subjects of inquiry in mind.¹⁹ This will help immensely in understanding each other's views. There are many instances the world over of how nations have learnt and are still learning to understand ethnic differences and respect the rights of indigenous people. This is something the Andaman Administration should seriously consider by drawing upon the experience of others and ensuring the mistakes of the past are not repeated. The very

¹⁸ An old term used by ancient mariners to describe people whom they thought were man-eaters or cannibals.

¹⁹ By this I do not mean the creation of plantations or economic development alien to their lifestyle choices. Moreover tribal welfare carries on its shoulder the burden of designing methods for economic development and welfare. A relevant question that should be asked is 'whose choice of development is being negotiated, and why?'

fact that a substantial portion of land is legally entrusted to such islanders is most appreciable, but the fact remains that these spaces need more protection, understanding and consideration for future islanders to reap the benefits. Allowing these indigenous islanders to develop on their own terms will be a valuable contribution to the future of many such

indigenous people who have already suffered the onslaughts of 'development and civilization'. If we are able to learn from past mistakes and use the precious opportunity to be able to coexist with indigenous islanders on an equal basis, those benefiting will include the future generations of islanders and the also rest of the world.

Table I /Population of the Andaman Tribal communities

Year	G Andamanese	Onge	Jarawa	Sentinelese*	Total	Growth Rate %
1901	625	672*	585*	117	1999	
1911	455	631*	114*	117	1317	-34.12
1921	209	346*	114*	117	786	-40.32
1931	90	250*	70*	50	460	-41.47
1941						
1951	23	150*	50*	50	273	-40.65
1961	19	129	500*	50	698	155.6
1971	24	112	250*	82	468	-32.95
1981	26	97	250*	100	473	1.01
1991	45	95	280*	100	520	9.93
2001	43	96	240	39	418	-19.61

* Estimates

Source: Census of India & Pandit, TN. (1990), *The Sentinelese*, Anthropological Survey of India, Seagull Books, Calcutta.

Table II /Andaman Tribal population in comparison to total Andaman population

Year	Andaman and Nicobar		Andaman District		Andaman Tribes		Ratio
1	2	3	4	5	6	7	
	Total Population	Decadal Growth Rate %	Total Population	Decadal Growth Rate %	Total Population	Decadal Growth Rate %	Andaman Tribes: Andaman Population
1901	24649		18138		1999		1:09
1911	26459	7.34	17641	-2.74	1317	-34.12	1:13
1921	27086	2.37	17814	0.98	786	-40.32	1:22
1931	29463	8.78	19223	7.91	460	-41.47	1:42
1941	33768	14.6	21316	10.89			
1951	30971	-8.28	18962	-11.04	273	-40.65	1:69
1961	63548	105.19	48985	158.33	698	155.6	1:70
1971	115133	81.17	93468	90.81	468	-32.95	1:200
1981	188741	63.93	158287	69.35	473	1.01	1:335
1991	280661	48.7	241453	52.54	520	9.93	1:464
2001	356265	12.79	314239	30.14	418	-19.61	1:751

Source Census of India & Pandit, TN. (1990), *The Sentinelese*, Anthropological Survey of India, Seagull Books, Calcutta

2 Hostile borders on historical landscapes: the placeless place of Andamanese culture

*Based on an earlier paper titled 'Hostile borders and friendly contacts: Jarawas of Andaman Islands', Working Paper No 3.
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Abstract

This paper is an analysis of meanings attributed to contacts between Jarawas and non-Jarawas in the Andaman Islands. Unlike other Andaman tribal groups, the Jarawas are confined to a government-designated area of 765 square kilometres of forest reserve,²⁰ which is only a fraction of their former tribal land. Since early colonial occupation, government parties have sought out Jarawas on the west coast of the island they inhabit, bringing them gifts to try to establish friendly relations. On the eastern side, on the other hand, the Jarawas raid settlements and occasionally kill settlers and police who venture into their territory. The paper addresses the issue of how the contact event on the eastern side is different in Jarawa eyes from what occurs on the western side. The boundaries are given meanings by the various outsiders and the Jarawas, and these meanings are not fixed. Although contact events are intended to establish 'friendly' relations with 'hostile' Jarawas, no true relationship of trust and understanding has yet been established. This underlines the fact that meanings are bound by cultural, political and historical contexts.

Introduction

This paper is based on my early ethnographic field research in the Andaman Islands during 1993–99. While some knowledge of the tribal group known as the Jarawas is derived from historical accounts[1] and administrative directives,[2] much of what is known about the 'hostile' and 'isolated' Jarawas and Sentinelese is derived from what are known in official documents as 'contact expeditions'. [3]

Although I had been working in the Andamans since 1983, it was not until 1993 that the local Andaman administration allowed me to participate in a series of these expeditions. While I was restricted by various conditions and dictates, I was permitted to be involved in contact expeditions to the west coast, visiting the reserve forest area, and having opportunities to talk with non-tribal people living in close proximity to the 'hostile' tribals.[4]

This paper is an analysis based on observations made when I joined contact expeditions to the west coast, as well as when I visited the eastern side of Jarawa territory. In it I compare contacts on the west coast to historical accounts of such contacts. I also analyse contacts between Jarawa and non-Jarawa on the eastern side. Whereas 'friendly contact' has occurred most frequently on the west coast through specific interactive contact events, its meaning has become undecipherable when considered in relation to the events on the eastern side, where Jarawas come out of their assigned reserve and make contact with non-tribal settlers in a manner that is glossed by the administration as 'hostile'.

In the paper I question the accepted interpretations of cultural and historical notions of boundaries, the meanings of contact events, and the historical changes to

these meanings that have occurred. In questioning what makes a contact friendly or hostile I attempt to take the perspective, not of one side or the other, but of 'sitting on the fence'. Do the boundaries really exist within which the contacts are occurring? These questions and analysis originating from the culture and history have implications on how we have perceived our relations with and within the Jarawa reserve territory, even today.

Reading early accounts and listening to people involved in both friendly and hostile contacts is akin to sitting in a barber's chair. There, discourse and gaze exchanged between the mirrors in front of you and behind you endlessly reflect one another and collapse the distinctions between the real and the reflected place. It is this concept of 'placeless place' with which I am concerned. What can be learned from a group regarded as hostile and controlled so as to ensure minimum contact with others? Are the Jarawas really hostile, and in a world that is isolated and separate? If we use cultural and historical categories[5] to understand the world that outsiders insist is separate, what lies behind the attributed hostility, the constructed isolation and the imposed separation? Do moments of contact between tribal and non-tribal create a notion of boundary, making historically constructed boundaries redundant?

Most of the verbal/linguistic categories in events of contact remain untranslated and misunderstood,[6] but the actions of tribal and non-tribal participants, particularly in conjunction with observations made by those involved with contact, construct a space within which relations of contact are 'culturally translated'.

Issues of landscape and Jarawa place

A cluster of over 300 islands in the Bay of Bengal make up India's union territory of the Andaman and Nicobar Islands. From 1858 the islands had an historic significance because of their strategic location for the British empire within South and Southeast Asia. Some 450 hunting and gathering individuals of the indigenous tribes of the Andaman Islands make up about 0.32% of the total population.[7] Beyond the boundary of Port Blair, the administrative seat, lies forest that has been steadily cleared for small homes and cultivation. The possibility of exploiting this land attracts an increasing number of people, mainly from poorer parts of south and eastern India, who encroach upon it, bypassing the administrative regulations through loopholes created by political uncertainties. Can the influx be controlled? Should it be stopped? These are some of the concerns of the people on the island. Embedded within the range of voices and opinions is the complex problem of the tribal populations who have lived in the forests for far longer than those coming as colonisers, prisoners or settlers.[8]

Jarawas are one of the last remaining tribal groups in this part of the world who have continued to live in the forest without being assimilated to any degree within the larger society. Today, Jarawas are confined to 765 square

20 This area was increased to a little over 1000 sq. km in 2004 (Annexure I)

kilometres²¹ of Jarawa reserve forest in the South and Middle Andaman Islands. Since India's independence this area has been set aside for their protection and use, but within a boundary about which they are perhaps unaware. From their perspective, pressure since the earliest colonial times has increasingly restricted them to a confined area.[9] As an ethnographer of Andamanese culture, I have often wondered if the Jarawas appreciate at all that a boundary exists between their world of forest and the surrounding forest that is being invaded by the world. Is this division of place meaningless for them? Is there, rather, an unbounded landscape in which they are expected to give up the traditional pattern, common to hunting and gathering societies, of moving in relation to seasons and resources?

From the point of view of the authorities (both colonial and post-colonial), the Jarawas have a designated and demarcated place[10] which provides them with access to the seashore, the east side of one island and the evergreen tropical forest that covers the longitudinal continuation of the Tirur hill tracts. This forest blends into the settlement areas and small fields worked by farmers. The designated Jarawa area is where the authorities believe the Jarawas should be confined, where they should be observed and which only authorised persons should enter.

This imposition of a territory on Jarawas generates a discourse of power, obedience and authority. This discourse also includes non-tribal populations who are subject to the same authority. Both tribals and non-tribals move across the boundary that is supposed to keep them bound to designated areas.[11]

Signs have been placed to demarcate Jarawa territory. However, since neither they nor the settlers comprehend written words, their significance is lost and the signs are meaningless.[12] Along with the signs, a force of Bush Police and a series of outposts exist to control and enforce the protection of people on both sides of the boundary. These Bush Police attempt to keep separate the two worlds into which both Jarawa and non-Jarawa frequently cross. Can Jarawas and non-Jarawas remain separate, since the boundaries and borders are imposed? Crossing the boundary collapses the imposed and culturally constructed division of a Jarawa space and non-Jarawa space. The transgressions across it not only break down the imposed boundary but also create a counter discourse that reflects upon the very way in which the power and authority that imposed the border represent themselves to Jarawas and non-Jarawas.

The question of boundary

A boundary is the symbolic border between one place and another. A boundary exists when a place within it is identified as distinct from the surrounding landscape. In my cultural and historical analysis of contact events, I

will suggest that the imposition of the boundary around Jarawa territory not only creates a discontinuity of landscape, but also creates disharmony, dissonance and an historically distinct form of interaction that contributes to making the place a placeless entity, where rules are broken, where emotions are mixed, and where roles and intentions are misunderstood. The boundaries create not only distinctions and divisions to confine meanings and movements, but meaning is also engendered when the boundaries are broken out of. This place perpetuates the location of the tribes in a placeless place – like the place between two mirrors, which can be reflected to infinity – a place that is there without being really there. It is a site but not a real place on or in a landscape, a site that Foucault calls space of the 'heterotopia type' in which all the 'real sites that can be found within the culture are simultaneously represented, contested and inverted'.[13]

Social scientists have approached borders and boundaries as demarcated areas that operate on the principle of exclusion, generating a discourse of power, politics and history in a given place and time. In this model, movement across boundaries is often restricted, limited or denied. The insistence is on 'within-ness' and 'outsideness'. The other view of boundary has been that it creates an overlap, fostering a feeling of 'between-ness' and 'transition across'. A unique place is created between A and B that has something of both A and B in it but is generally separate and distinct. This is a conceptualised boundary[14] that constitutes an ambiguous and liminal place and time. Often interpreted as a grey area where black and white blend, it generates a discourse of ritual and history in which subjects are transformed through transformative movement.

In this ethnographic example, the Jarawas, settlers and administrators are all brought together by contact events, which suggests that boundaries are constructed by the people in the landscape and reflect expansion, contraction and collapse – making the exchanged discourse of and on boundaries highly empowered, a matter of contested identity; making the landscape a created field of power where history, politics, social relations and cultural perceptions become issues of 'high tension'.[15]

Boundaries do not have meaning in themselves but their imposition creates meanings for the space on which they are demarcated. Thomas,[16] in his analysis of European and Andamanese contact, conceives of the islands as a non-representable 'mirage', as a 'misrepresentation' because the boundaries constitute a 'transcultural space' with destabilised and transient territorial spaces. In Thomas's conception, this 'mirage' is comprised of a series of transcultural events and meanings which are representative or counter representative and which refer to spaces that are 'between cultures' in a 'momentary social vacuum'.[17]

In his comparison of Andamanese contact events with other ethnographic regions and accounts, Thomas treats these contact events as things of the past.[18] However, in the Middle and South Andamans, contact with 'hostile Jarawas' is not just something of the past but something that continues in the present. These ongoing

21 This area was increased to a little over 1000 sq. km in 2004 (Annexure I)

contact events create not misrepresentation or misinterpretation but rather accumulated reinterpretation and representation of the contactor and the contacted, and question the very transcultural space enclosed in the boundaries.

The Jarawa landscape – including space, history and discourse generated by contact events within and across boundaries – blends political concerns with ritual acts. Power and beliefs, authority and ideas blend in the unfolding of contact events at the boundaries. This blending at the boundaries through contact events has made the boundary synthetic, porous and permeable. The administration wants to impose notions of exclusion on a people who have a tendency to be inclusive. Consequently, the borders and boundaries become like a series of concave reflecting mirrors, distorting the identities, images and intentions of the people on a landscape that is given (natural) as a continuum but segmented (cultural) as a territory. This makes the event of contact at the imposed boundaries a series of reflections involving the ones who contact and the ones who are contacted. The people are reflectors and are reflected in the discourse. The landscape too, should not be considered inert, for people within it give quite different meanings to it, meanings that allow boundaries to make landscapes expressive of contradictory, fragmented ideas.

Such a process is particularly important for tribal people at a placeless place that, over a period, is encompassed by a non-tribal place. It makes the placeless place also a place, allows meanings to transform the imaginary into actual memory, the historical into ritual, the political into fictional, and permits many other combinations of the types of discourses that are made in a placeless place.

Let me give an example. Students at Tirur village school (Map VIIa), close to the Jarawa reserve forest, pointed to the hills overlooking the area and said they knew Jarawas sometimes came out of the forest. In July 1991, they went on, Jarawas came out and killed an eight-year old boy who was playing on the fringe of the fields while his sister was minding cattle. On being asked what they thought Jarawas were, the school children narrated a story based on the image of the trained elephants that – because of lumber operations being adversely affected by the Second World War – were left behind by timber contractors, and over a period became wild in the forest.

Jarawas are like the left-behind elephants in the forest. Jarawas came from some kingdom across the sea and got stranded in the forest here, and over a period they forgot all their civilisation and sociality and became wild.

The colonial situation, creating the placeless place

When the British controlled the Andamans, they developed Port Blair into a seat of administration by using prisoners from mainland India to clear the forests, with Andamanese tribals being employed as guides.[19] This way of organising the work led to frequent attacks by Jarawas on people invading their territory.[20] As a retaliatory tactic, other Andamanese and Burmese forest workers and sepoys were

ordered to undertake armed 'punitive expeditions' on the Jarawas.[21] Vacant Jarawa camp-sites in the interior forests were invaded and ransacked. Sometimes they were set fire to. Reports suggest that face-to-face interaction led to fatalities on both sides, and to the capture of Jarawa women and children. However, most of the coastal area connected to the forests associated with the Jarawas, that is, the forests on the west side of the main island, was subject to a very different historical experience.[22] From 1789 the coast was visited by British colonial ships that, on sighting the Jarawas, would send boats ashore so that the islands could be explored. A description by C.H. Cornwallis dated 19 December 1788 exemplifies the extent and nature of the contacts:

With respect to the best method of opening an intercourse with the people in the rude state in which they have hitherto been described to be, much may be collected from the attempts made by modern navigators on discovery; and it would appear from their regulations that it would be most advisable for you at first to refrain from landing (unless in the case of positive necessity) except at such places on the coast as you may judge from their appearance will successfully answer the objects of your survey ... and in an attempt to offer them a social communication, which shall afford them the comforts and advantages of more civilised life, the dictates of humanity no less than of policy require that this should be effected as much as possible by conciliatory means, certainly without bloodshed. It is therefore recommended to you to endeavour by persuasion, presents and other allurements (but not by force or deceit) to prevail on some of the natives to come on board your vessels where kind and attentive treatment of them may remove the apprehensions of the inhabitants in general, and promote an easy intercourse, while at the same time a useful object may be gained in acquiring a knowledge of their manners and customs, and such words and expressions in their language as would facilitate the communication between us.[23]

These attempts to make friendly contact with 'the natives' were generally unsuccessful, and were soon replaced by a pattern of gift-giving and receiving which involved mostly food and implements. Over a period, this led to the Jarawas being brought aboard the ships.

In this process, the ship became a place representing a different site beyond the border created by the seashore.[24] From the Jarawa perspective, it was a new place or space, made accessible by boats that took them across boundaries and into contact with a colonial universe that could be closely observed on the ship's deck.[25] The deck of the ship was thus transformed into a 'heterotopia', which simultaneously represented the two sites of culture created by the boundary set up between the bordering coastline, occupied by the 'unpredictable/unknown' Jarawas, and the ship, controlled by the hierarchical commanding colonial power.[26]

The Jarawas were brought on board by indigenous naval lascars of Indian and Burmese descent accompanied by Andamanese sharp shooters. On board the Jarawas could observe the clothed British naval officers with the same curiosity as their nakedness was observed by the non-tribals. This interaction was reportedly characterised by the

outsiders trying not to laugh as they gave gifts to establish relations, while the Jarawas were childishly amused, running around chaotically. Often Jarawas were thrown overboard to swim back to the coast.[27]

The coastline can be regarded as a border between forest and sea that, through the process of gift-leaving and taking, was contested between the Jarawas and non-Jarawas. It was a place where the two could encounter each other, but never coexist. Contact on or beyond the coastline, on the ship or on the hinterland, characterised by the dichotomies of discipline and chaos, fear and humour, provides a paradigm of the reflected and deflected discourses in which each of the two parties made meaning for and from the other.

Though movement across the space was possible, there was the danger of the unknown for each party. On the one hand, the Jarawas would swim in large groups to the ships and try to climb the deck; on the other, sepoys would very apprehensively land on the coastline to locate Jarawa camps, often intending to ambush and capture some Jarawas to 'teach them lessons' for acts they may have done on the forest side of the boundary. Never did intentions, meanings and borders become clear.

On the western side of the island, historical expeditions evolved into punitive expeditions, while on the eastern side Jarawas continued their hostile attacks on the increasing number of outsiders. These two punitive sets of activities did not contribute to the acceptance of a border which would bind and confine differences.

Contact events on the western side

Colonial accounts of the Jarawas vary, but show a tribal group that is difficult to define, describe or predict. In his 1795 observations M. Symes reports, 'Coconut ... is not to be found here; they (the Jarawas) are extremely fond of it; whenever a nut was left in their way by the settlers, it was immediately carried off with much apparent satisfaction. Captain Stokes, who constantly resided on the island, disappointed in his attempts to establish a social intercourse, endeavoured to alleviate their wants by sending, as often as circumstances would admit, small supplies of victuals to their huts, which were always abandoned on the approach of his people, but restored to again when they had withdrawn.'[28] Another colonial account, by E.H. Man, gives a different picture of how the Jarawas presented themselves in contact events: 'It has been remarked with regret by all interested in the race, that intercourse with the alien population has, generally speaking prejudicially affected their morals. ... Though there are some grounds for the opinion hitherto held regarding their fearlessness, our more recent relations with them prove that the surprising courage and apparent utter recklessness of life which they manifested in their early encounters with us were due rather to their ignorance of, and disbelief in any foe more powerful than themselves, or with means of destruction more deadly than their own... All is regarded as fair in war, and cunning and treachery are considered worthy of

commendation; in short the high type of courage common among most civilised, and a few savage nations appears to be totally lacking among the Andamanese; nevertheless, those who evince courage are much admired. ... When appraised of the existence of danger, they usually evince extreme caution, and only venture upon an attack when well assured that by their superior numbers, they can put the enemy to flight, or will be able, by stratagem, to surprise and overpower him. At the same time certain traits, which have been noticeable in their dealings with us, would give colour to the belief that they are not altogether lacking in the sense of honour, and have some faint idea of the meaning of justice'.[29]

The fearsome and unpredictable nature of the Jarawas made the administration's contact parties sensitive to a boundary that they crossed only cautiously; and the hostility and difference symbolised by the boundary made it impossible for them to communicate with Jarawas. A gap was thus maintained between the contacted and contactors. The west coast became in effect a landscape that embodied a series of boundaries and meanings: forests, coastline, beach, sea negotiated with boat, sea negotiated with ship, all embodying the notion of limits and lines, across which there was continuous movement of contact and non-contact, friendliness and unfriendliness, moving in (non-tribal) and moving out (Jarawa).

These patterns of interaction have continued since colonial times, across boundaries where the meaning of contact is constituted by continuous efforts of non-tribals to 'move in' and Jarawas to 'move out'. In post-colonial times these boundaries have remained but have acquired an additional meaning, of a place where 'gifts' may be deposited and left for Jarawas.

After independence, the Indian government continued its practice of sending ships, boats and gifts to the west coast to pacify the Jarawas and to make possible the delineation of Jarawa territory. This was regarded as continuing the policy of contact in the hope of instilling trust, friendship and understanding into the Jarawas. The belief was that, once the Jarawas were pacified, they could be brought into the 'mainstream of the society', as had happened with other Andamanese tribals who historically had been hostile and had resisted outsiders coming into the island, but had eventually joined the administration-managed 'Andaman Homes'.[30]

Many analysts have claimed that groups like the Great Andamanese and Ongees have suffered demographic decline, even genocide, because of the push to make them join the mainstream of society via administration-managed settlements.[31] In the case of the Jarawas, however, such claims are not at issue. For the Jarawas, rather, the problem of contact remains constant and unavoidable.

Since the Tribal Regulation of 1956 (Annexure I), which declared the Jarawa forest a protected area, armed guards have left gunny bags of gift items like coconuts, plantains, puffed rice, utensils and scrap metal on the west coast beaches and from the safe distance of their ships have observed Jarawas coming onto the shore and collecting the bags (Map VIIb). The border between the two worlds has

in some ways been maintained, but rather as a demarcation of space in which representation of the two signified worlds, that of the tribal and the non-tribal, is never simultaneously present in the same place. In a way it has been the outsiders' acknowledgement of a boundary they have created for themselves. What has been created is the concept of a landscape without demarcation for the interaction of the two parties. The landscape is a place that belongs to nobody, a place that is placeless – where gifts can be left for recipients who are normally invisible.

It was only in 1970 that Jarawas appeared on the beach and, without any blatant hostility, allowed a government contact party to land. The traditional pattern of power started by the British had never before involved the Jarawas allowing outsiders to land among them, but twenty-odd years of dropping gifts eventually led to a very different perception of the outsiders on the beach of the Jarawa landscape.

While aspects of the contact event remained the same as they were in colonial days (government ships anchored off the coast and sent small boats ashore with contact parties, armed guards and gifts), these gifts, for the first time, were not just dropped but were given hand to hand. As the contact events evolved, the Jarawas were allowed to choose from the boat whatever items they wanted.

Innovations in the culture of contact events followed the growing demand to pacify the Jarawas as the numbers of settlers on the island kept increasing steadily. Nowadays friendly contacts are organised by the government-administered agency for tribal welfare, Andaman Adim Janjati Vikas Samiti. Around every full moon, depending on weather conditions, the agency organises a team of people who go by boat to the western coast of the Middle Andamans via Kadamtala. This pre-appointed contact team includes administrators, a doctor, an officer from the statistics department, an anthropologist from the local anthropology survey office and a government photographer.

As the ship reaches the coastline, it starts sounding its horn and the people on board look out for Jarawas moving out from the thickets of the forest. When they sight the Jarawas the ship is brought to a halt. Small motorboats are loaded with gifts, and members of the contact party go in to the sandy coastline, about two kilometres from the ship. In another smaller boat, members of the Bush Police remain on alert. They are not allowed to land on the beach but watch for trouble.

The boat loaded with gifts of strips of red cloth, coconuts and bananas approaches the beach. Carrying their woven baskets, waiting Jarawas move towards the boat and start climbing over it, scrambling for the gifts brought by the contact party. The Jarawas try first to pick selectively, and then pick whatever they can to fill their baskets. Often several members of the same family join in the scramble, taking away loaded baskets, depositing the contents in a fixed place on the beach, and coming back to collect the next load. On average, about 20 people are contacted at any given spot, but there have been occasions when only women and children are contacted,

or when a large group of 50 or 60 is encountered.

Often the Jarawas arrive after the contact party has landed. They have learned the relation of power between the ship and the boat and, as a result, seek to visit the ship for more gifts and have started to expect the contact team on the boat to unload gifts for them, in a way reminiscent of the boat's relationship to the ship in colonial days. Amid the commotion, as they run between the boat and the place where the gifts are deposited, the Jarawas sing in a repetitive chant-like tone. No Jarawa ever tries to take from the pile of another family. As all the gift items are unloaded and distributed, the contact party disembarks and moves among the Jarawas congregated on the beach.

When they first catch sight of a ship on the horizon, the Jarawas light a small fire on the beach in anticipation of the contact party's arrival. After they have received the gifts, they roast plantain in the fire and eat it with some coconuts while the contact party is present. Sometimes the food is shared between the contacted and the contactors. Once eating starts, the contact party begins its observations. The nature of these observations will depend on individual interests and orientation and can encompass estimating the number of Jarawas present, and noting any visible sickness or injury and any need for medical attention. Jarawas are photographed, taped and filmed.

Contact also involves the Jarawas' observation of the contact party. The contact parties' skin, their variation in body size and shape, and their clothes are very carefully scrutinised. Sometimes sounds are repeated between the contactors and the contacted to ascertain meaning and understanding.[32] Sometimes, as this process goes on, some Jarawas start slowly picking up their loads of gifts and moving into the forest toward their campsites. On other occasions, the contact party will wander in with the Jarawas and will be privileged to see where they live. Generally, the contact event is brought to an end within three to four hours, and the visitors wave goodbye to the Jarawas and get back to the ship.

Over a period, the Jarawas have learned that tape recorders and video cameras have supplanted the cameras the contact party used to use. The Jarawas have heard the tapes played back to them, and they have seen how the world looks through the viewfinder of a camera.

These fleeting opportunities for observation have confirmed what was ascertained about the Jarawas by early British expeditions to the islands. However, information gathered and imparted in a short span of time during contact that takes place only three to five times in a year is incomplete. Nothing definite is known for sure. In fact, there is no fixed systematic record maintained of the people contacted, and even the number of Jarawas living in the region is only estimated. It is not even known if the Jarawas call themselves Jarawas or not. The event asserts the power relations between 'us', the outsiders who have come and accomplished the directed friendly contact with those known as the Jarawas, and the Jarawas themselves. The Jarawas understand the power relations embodied in the contact party, just as they understand and have understood in the past the relationship between themselves, the ship anchored in the harbour and the

people who arrive on shore by boat. For the Jarawas, those who come to the beach bring things to give, and the power is in the 'gifts' being given and taken.

Those who join the contact party are subject to command and authority. Some join because they have been told to go, and some seek to go. For some it is a fun trip among the 'natural savage' where there is a sense of romance, uncertainty and, above all, exoticness. Without a doubt, Jarawas have noted that the number in the contact party and the quantity of gifts given increase when an important state guest is on the ship. Such guests sometimes supervise the operation, sometimes even coming into shore on the boat for actual contact. Shirtless subordinates on the boat listen to the authority (shirted) figure on the beach, and now the Jarawas themselves command shirtless contact team members to unload the gift items for them.

Often clothes are demanded and torn apart by the Jarawas. We have yet to ask the Jarawas why they tear apart the clothes. Often the Jarawas remove some of the shell and leaf ornaments – the only items they wear – and give them to the contact party; it then may follow that members of the contact party should give away what is on their bodies. Local anthropologists stationed at the Port Blair office of the Anthropological Survey of India explained the situation as follows: Contact with Jarawas is what we call Participant Observation – becoming one with the native. If we visit the naked Jarawas then we should be without clothes as much as possible. The administration has therefore given instructions that contact party should land with minimum clothes on – but all this is forgotten when we have some high ranking official in the contact expedition since who is going to tell them to please have only undergarments on!

Individuals who have been involved over a period with Jarawa contact do not agree about the objective of contact events. Some feel that regular events instill a feeling of mutual trust and motivate the Jarawas to join the mainstream of society. Others feel that nothing is really accomplished or learned by any of the group involved in the drama.

The government now has a policy of discouraging the practice of bringing Jarawas on board ship and taking them to settlements elsewhere on the islands, as was sometimes done in the past. This policy has evolved from incidents such as that at the end of March 1977 when two Jarawa men were brought to Port Blair, and one was identified as having an old bullet wound. After a brief stay they were returned in the hope that they would carry a message of trust and goodwill. However, soon after (20 April 1977), five poachers were killed by Jarawas from the same region. Such incidents show that efforts to break down the boundary and the meanings attached to it don't necessarily work. Such incidents lead to questions about contact, friendliness, mutual respect and how the Jarawas actually perceive otherness, inclusiveness, boundaries and power. Evidence suggests they understand the relations of power but not the boundaries that, from the authorities point of view, limit them.[33]

Interesting parallels emerge between the 1861 account of J.C. Haughton and contemporary times. Outlining his administrative predicament when attempting

to maintain a non-hostile and orderly relationship with Jarawas, Haughton describes how he started 'capturing' natives in coastal areas and bringing them to Port Blair or even to Rangoon to 'learn' about them and 'teach' them about the outside world.[34] There seems to be a logical continuity between giving (by the observer) and taking gift items (by the observed), and teaching and learning. In fact, the beach becomes a boundary where the visitors and Jarawas act out a drama that symbolises the power relations between them; the role of the Jarawas is to receive things from people who are apprehensive about them but who also want them to be 'friendly' and to 'learn' about the outside world.

Some veteran members of contact parties remember that in earlier days of contact the Jarawas were like mischievous young boys who would not hesitate to take things from contact party members and hide them away. They would often deliberately fart right in front of contact team members, and be thrilled to see team members running away holding their noses. Women would squirt breast milk on the ship's crew or urinate – all very reminiscent of the British colonial situation when order, chaos, humour and disgust blended together. On being pushed away, Jarawas would get extremely physical till they were lowered into boats and taken back to the coastline. More recently, individual Jarawas have been observed asserting that they want more gifts or asking why they did not get a specific item such as piece of metal cutting blade or a nail. On not getting it they hold the individual member of the contact party whom they feel is responsible very firmly, apparently to express their anger and resentment. There have been incidents when Jarawas get into fights and fellow Jarawas – particularly women – have had to intervene and calm things down.

Most of the contact team, who are male, have on occasion behaved badly and tried to take photographs of naked Jarawa women. When non-Jarawa women have accompanied contact parties, Jarawa men and women have been extremely curious about them and on occasions physical scuffles have led to women in the contact team feeling as if they were being attacked. The idea of other women (the Jarawa women) being different from the 'contact' women creates yet another division between the visiting group and the Jarawas. A further boundary is set up that makes it possible for others to undertake all sorts of examinations of the Jarawas (medical, physical, anthropological). It does not, however, make permissible reciprocal examination by the Jarawas of the others.

Now, a strict code of conduct has been established for contact parties. No individual is allowed to undertake any action that could put the whole team at risk or could jeopardise the relationship established with the Jarawas. No attempt is made to bring Jarawas on board ship or to take them on a trip to show them the world of the contact party. Gifts are no longer unloaded by the contact team and left on the beach for the Jarawas to redistribute later among themselves. It is imperative that the contact party ensures that the Jarawas not only get the gift items but also see who brings them. The Jarawas are allowed to take the gift items on their own.

Contact on the eastern side

The situation on the eastern side of the forest (as opposed to the west coast) is different. The eastern side, which has most of the villages, farming fields and forest, has historically been subjected to much commercial pressure. Yet it reflects what has happened historically on the forested western side, where a series of borders creates distortions and refractions in the placeless place created between the observed Jarawas and the observing authority, both colonial and post-colonial – between authority and the authority-less.

Since the completion of the Andaman trunk road (1988) it has been possible for people and commercial traffic to travel by road up to Mayabundar in North Andaman. After a bus enters the Ferrargunj district immediately north of the Port Blair region, it stops at Jirkatang Number Two Checkpost. This is a compulsory stop but usually nobody gets off. Instead, an armed escort from the Bush Police under Andaman Nicobar Police Force authority is assigned to travel with the bus. In some buses, the glass windows in the front are reinforced with wire netting. The driver shows his permit and enters the required information in a logbook and, after checking that all the windows are shut, ensures the guard gets a front seat and is comfortably installed. The guard gives an all-clear sign, and the bus moves slowly forward and waits for a barrier to rise. A sign states that one is entering the Jarawa reserve forest. Twenty-three kilometres of the Andaman trunk road passes through Jarawa territory. Drivers of vehicles are expected to refrain from sounding their horns loudly. This is to ensure the Jarawas can continue hunting in the forest without the sound of horns disturbing their tracking.

Buses never travel at night or without a Bush Police escort. Such an escort, provided in the belief that the noise of gunfire will scare Jarawas away, is on hand should they attack the bus or try to stop it. In the past there have been incidents when Jarawas have tried to stop the bus and other vehicles by shooting arrows at the windscreen. When the road was being constructed, the construction workers were often targeted by the Jarawas. Despite various committees' and commissions' ideas about how the road may or may not affect Jarawas, the road is still in use today.[35] At the road's points of entry and exit, non-tribal settlement has been increasing, and it has attracted visitors to local markets, fairs and temples.

The road, the growing settlements and the increasing presence of outsiders on the eastern side have had their own impact on the Jarawa and non-Jarawa situation. The settlers see the Jarawas' reserve forest as yet another area to be exploited, and there is frequent illegal poaching and extraction of resources from it. Small settler communities have local heroes and legends about how they have dealt with Jarawas in the forest – how such heroes have killed Jarawas while hunting wild pigs; how they have made friends with Jarawas, as they claim to have done on the west coast; how they have succeeded in avoiding being killed by

fierce Jarawas while collecting materials from the forest.

Some incidents are true, and the injuries and reported deaths of settlers by arrows and the mutilation of their bodies is proof that outsiders do go into out-of-bound areas.[36] Records between 1946 and 1988 report an average of at least seven 'Jarawa hostilities' a year, during which an average of about four individuals died (Annexure VII).[37] Between 1983 and 1988, 15 non-Jarawas were killed in 28 incidents, eight of them in Jarawa territory. Most reported deaths seem to have occurred when non-Jarawas entered Jarawa territory. From November 1993 to January 1994, eleven individuals were reported to have been killed by Jarawas within Jarawa territory. The local police had to recover the bodies in various stages of decomposition and with signs of mutilation, particularly of the groin area. Deposits of human faeces were also evident at the sites. During the same period the local newspaper, *The Daily Telegram*, [38] reported that the bodies of five missing Wandoor fisherman were recovered at Foul Bay, their jaws broken and their bodies pierced by arrows. In his report, the district police officer explained the practice of subjecting dead bodies to extreme mutilation as a Jarawa way of ensuring that 'souls would not roam about in the form of demons but instead would find their heavenly abode'.

The Jarawas' hostile acts are not confined to outsiders entering the forest, but also cross boundaries and involve attacks on settlements and Bush Police camps, often on nights when there is a full moon. The Jarawas are reported to go through small settlements, carrying away clothes hanging outside and metal utensils and tools, consuming fruit from planted fruit trees, and destroying fences and thatching. On occasion, they kill dogs and livestock with their arrows. During these incidents, few deaths occur. Sometimes, settlers have been awakened and, in the darkness, have chased Jarawas away or have been shot at by Jarawas.

The Bush Police posts and police patrols, which are intended to keep the two worlds separate, are often the prime exploiters of the Jarawa forest. Like the sepoys and contactors in the boat, the gun-carrying Bush Police cross boundaries and are sometimes therefore the targets of Jarawa ambush. Over the last 10 years, Bush Police camps erected within the vicinity of the Jarawa reserve have become warning posts. Originally set up to protect the Jarawa, Bush Police are seen today as a force to protect the settlers, firing their guns in the air to scare Jarawas away from settler areas. For example, on 20 October 1991 Jarawas attacked the Bush Police camp at Jirkatang and one policeman was killed. In retaliation and in defence, the police claimed to have fired 300 rounds in the air, in accordance with the regulations. According to local people, however, the policeman killed had been poaching pigs in Jarawa territory. (The authorities were concerned about the intensity and amount of firing and the possibility of Jarawas being hurt or killed, and gave orders that thenceforth the Bush Police should be issued only

with blanks. But this order was revoked in 1992, when Jarawas carried out an early morning attack on a Bush Police camp near Tirur.)

To a degree, the settlers around the Jarawa reserve forest are now used to Jarawa raids. They report them when they happen, and claim compensation. What they fear most is the fact that, on occasion, the Jarawas kill people with their arrows. Those who are targeted are popularly believed to be those the Jarawas have spotted in the forest trying to hunt or extract forest products – illegal activities, as settlers are not allowed to enter the reserve forest. This popular notion is questionable, since it implies that the Jarawas are on the lookout for culprits. In point of fact the Jarawas are not aware of the boundaries that have been imposed between non-Jarawas and Jarawas. Yet it cannot be denied that Jarawas resent outsiders exploiting their forest, and it is mostly outsider settlements near the forest that they raid.

There are no filed papers of Jarawas reporting damage or loss of life among themselves, and there are no records of settlers hurting or killing Jarawas while illegally entering the Jarawa forest. The settlers tell stories about killing or wounding 'wild natives' in the forest, but Jarawas have never left behind an injured person or a dead body as evidence of this.[39]

Implications of the two types of contact

The Jarawas' habit of raiding settlement areas for fruit and metal scraps corresponds to their habit of taking gifts from contact parties on the western side.[40] The distinction between giving things to Jarawas and things being taken by Jarawas is made by the authorities in relation to the two different events. But from the Jarawa perspective, if you can take on the western borders, why can you not do the same on the eastern borders? In any case, the Jarawas do not perceive borders and boundaries, but rather a continuous landscape in which the power relations and meanings that let them 'take' on one side (the west) apply equally to other side (the east).[41]

In a way, the eastern side and western side are reflections of the interactions between Jarawas and non-Jarawas. The western side is the place where the administration enters with 'gifts' for the Jarawas to take, but on the eastern side the Jarawas cross the administration-created boundaries to 'take' what they can. Events on both sides of the island involve Jarawas taking things, and the boundaries created by the administrative power are incomprehensible to them. Consequently actions and transactions undertaken by Jarawas across the boundaries are misconstrued by non-Jarawas. Since the boundaries are politically, historically and culturally constructed, and continuously reconstructed, the meaning of Jarawa acts has become a complex muddle which needs to be translated. The Jarawas on the western side are friendly and take gifts

given to promote 'friendliness', yet become hostile and carry out raids on the eastern side.

Conversely, since Jarawas on the western border are recipients of 'gifts', settlers regard taking things out of the Jarawa forest via the eastern border as justifiable.[42] Settlers see the government giving things to the Jarawas as a means to instill discipline and law within the particular space created by the imposition of a boundary. To construct the meaning and the boundary, the outsider with power (such as the contact party) moves into the Jarawa forest. Yet those with authority and power who cross the Jarawa boundary resent the Jarawas moving out to observe and collect from the settlers' world. This world is created by the imposition of a boundary, and the Jarawas make contact across it that is complementary to the outsider. But while such contact creates meaning for the outsider, it creates no such meaning for the Jarawas.

For the Jarawas contact events are constituted by acts of taking. From their perspective, taking the things brought to them as gifts by outsiders who enter the western side of their territory and taking things from the settlers' territory on the eastern side are not differentiated as separate events, acts and meanings. They do not differentiate between being given to and taking.[43] From the non-Jarawa perspective, contact as an event has two different meanings. On the western side, contact and giving and taking are regarded as friendly; on the eastern side, contact and taking are hostile. For the Jarawas, events of contact, whether on the western or the eastern side, have only one meaning, getting things, and this has remained constant over time. For non-Jarawas, contact has more than one meaning depending on the spatial context, denoted by how things are taken in different places.

There is no reason to think the Jarawas see themselves as either friendly or hostile. After all, hostility and friendliness involve more than one individual or one party and are mutually understood. Perhaps the Jarawas should be left alone, with laws strictly enforced that would limit intrusions into their forests. But would such restrictions include the use of the road through the forest? If not, how could its use be controlled? In any case, how can we ensure that what the Jarawas now see as a hostile act can be seen by them instead, as a type of contact that, from their perspective, is desirable or even inevitable? Some groups of people on the island debate whether the Jarawas should be treated as people with special boundaries, or whether they should be brought out and made to join the island's democratic and progressive main stream. Friendliness, hostility, observers, authority, contactors, colonial and post-colonial administrators have all imposed a series of boundaries to keep the world of tribe and non-tribe classified and separated. But those who are classified, separated and signified by imposed boundaries move across them, making them meaningless. Perhaps the Jarawas will eventually become placeless like the Great Andamanese[44] and the Ongees[45] who have been resettled in a place the authorities have created for them.

Conclusion

The Andamanese tribals have been portrayed since the late 18th century as isolated and primitive, even though the Andaman Islands are in one of the busiest sea-lanes in the Bay of Bengal.[46] Similarly, the Andamanese Jarawas are portrayed as 'friendly' or 'hostile' depending on the nature of the contact that defines them, and of the outsider's perception of their passage across or existence within imposed boundaries.

Jarawas have always been connected to an outside world by sporadic intrusions and attempts to establish settlements.[47] These moments have been contested and marked by violence.[48] As meanings have been variously assigned to the Jarawas, they too have been constructing the meaning of the other[49] and their 'anthropological knowledge' of the outsider. 'Friendly contact' over almost 200 years is encapsulated in non-verbal communication reinforced by gifts of food, iron, bits of glass, mirrors, nails, knives, etc., and by the 'exchange' of gifts.[50] No new acts have been added to the events of contact and no new meanings of contact with the Jarawas have been deciphered. In the continued practice of contact events, the relationship between various contact experiences and subtle perceptual transformations has been ignored.

While the meaning of contact on the western side of the island has remained largely unchanged, however, contact regarded as 'hostile' on the eastern side of the forest has been given new meanings. The contact situations, continued over a period of time, tell us something about non-verbal communication between groups of people with different constellations of customs, manners and language. Contact events have not brought Jarawas and non-Jarawas together in a shared discourse; rather, they have created different misunderstandings, at least from the outsiders' perspectives. For the Jarawas it is neither the variation in contact events nor outsiders' distinct divisions of space and boundaries that creates the meaning of contact. For them, since space or landscape is not divided by boundaries but is 'unbounded',[51] acts such as 'taking things' and 'going away' have remained constant, whereas for outsiders they appear unpredictable and meaningless. For the outsiders it seems logical that meanings of acts as well as contacts should remain specific to areas bound in and separated by boundaries.

History and the pattern of contacts are moments of evidence that bring about the existence of a peculiar space, the border between cultures.[52] In other words, time creates space. However, this space is not just geographic. In the case considered in this study, the space that was once contested between the East India Company and the Andamanese is now contested between the Indian administration and the Jarawas. The space created by the sequence of contact events through time is, in a way, 'translated space', a means of organising communication between two cultures by juxtaposing displaced cultural elements, such as material artefacts and people, and a backdrop that includes ships, beaches and settlements.

Endnotes

- 1 Portman, M. 1899. *A History of Our Relations with the Andamanese*. Calcutta, Office of the Superintendent of Government Printing, India, pp. 11–2, 19, 51, 116, 701–67; Man, E. 1932. *On the Aboriginal Inhabitants of the Andaman Islands*. London, Royal Anthropological Institute, pp. 135–6; Ritchie, J. 1771. *A Hydrological Journal of a Cursory Survey of the Coasts and Islands in Bay of Bengal*. London, George Bigg, p. 61; Colebrooke, R. 1807. 'On the Andaman Islands'. *Asiatic Research*, 4, p. 385; Earl, G. 1850. 'On the leading characteristics of the Papuan, Australian and Malayo-Polynesian Nations'. *Journal of Indian Archipelago*, 4, p. 9; Anon. 1859. *Selections from the Records of the Government of India (Home Department)*, Vol. 25. Calcutta, v. 60; Anon. 1908. *Local Gazetteer: The Andaman and Nicobar Islands*. Calcutta, pp. 13–14; Topping, M. 1791. 'Extracts from the log of the cutter "Mary" from Pulo Pinang to the Great Andaman'. In *Selections from the Records of the Madras Government*, No. 19, p. 44; Mouat, F. 1863. *Adventures and Researches Among the Andaman Islanders*. London, Hurst and Blacket, pp. 21–2.
- 2 See Portman, op. cit.; Awaradi, S. 1990. *Master Plan 1991–2021: For Welfare of Primitive Tribes of Andaman and Nicobar Islands*. Port Blair, Andaman Nicobar Administration; Das, H. and Rath, R. 1991. *The Tribals of Andaman and Nicobar Islands*. New Delhi, Ashis Publishing House, pp. 101–20.
- 3 Sarkar, J. 1990. *The Jarawas*. Calcutta, Seagull Books and Anthropological Survey of India; Pandit, T. 1990. *The Sentinelese*. Calcutta, Seagull Books and Anthropological Survey of India.
- 4 In 1983–1984, when I first worked among the Andamanese tribe of Ongees on Little Andaman Island, the Indian government insisted that I should not do research in the Ongee forest, but should work among the small group of Great Andamanese tribes settled on Strait Island by the government.
- 5 Radcliffe-Brown, A. 1922. *The Andaman Islanders*. Cambridge, Cambridge University Press, pp. vii–ix, 85, 134; Man, op. cit. 1932, pp. 195–7; Portman, op. cit. pp. 674–76.
- 6 Todorov, T. 1984. *The Conquest of America: The Question of the Other*. New York, Harper and Row.
- 7 1991 Census.
- 8 Saldanha, C. 1989. *Andaman, Nicobar, and Lakshadweep: An Environmental Impact Assessment*. New Delhi, Oxford and IBH Publishing Company Ltd, pp. 11–12, 31, 48.
- 9 A situation that has been experienced by most of the other hunter-gatherer groups of the island.
- 10 Pandya, V. 1991. 'From photography to ethnography: Andamanese documents and documentation'. *Visual Anthropology*, 4(3–4), pp. 389–99.
- 11 This invasion, in fact, is not confined to a misreading of boundaries on the eastern side but also on the west coast where fishermen and hunters invade the coastline to continue illegal exploitation of natural resources.
- 12 According to the Andaman administration's master plan (see Awaradi, op. cit.), there is a proposal to paint images of tribal and

non-tribal figures on the boards so that both groups can comprehend the significance of the existing boundary markers.

13 Foucault, M. 1986. 'Of other spaces'. *Diacritics*, Spring, p. 24.

14 Douglas, M. 1966. *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. New York, Praeger; see also, for example, Turner, V. 1977. *The Forest of Symbols: Aspects of Ndelembu Ritual*. Ithaca, Cornell University Press; Van Gennep, A. 1960. *The Rites of Passage*. Chicago, Chicago University Press.

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16 Thomas, D. 1996. *Transcultural Space and Transcultural Beings*. Boulder, Colorado, Westview Press, p. 5.

17 Op. cit. p. 35.

18 Denning, G. 1980. *Islands and Beaches: Discourse on a Silent Land. Marquesas 1774–1880*. Chicago, The Dorsey Press; Sahlins, M. 1985. *Islands of History*. Chicago, University of Chicago Press; and Schieffelin E. et al. 1991. *Like People You See in a Dream: First Contact in Six Papuan Societies*. Stanford, Stanford University Press.

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20 Houghton, J.C. 1861. 'Papers relating to the aborigines of Andaman Islands'. *Journal of the Asiatic Society*, 30, pp. 251–8.

21 See accounts of 1910 in appendix H, *Census of India 1921*, pp. 31–9.

22 Man, E. 1885. 'On the Andaman Islands and their inhabitants'. *Journal of the Anthropological Institute*, 14, p. 263; Mouat op. cit. pp. 77–8.

23 Cited in Temple, R. 1990. 'Extracts from the Bengal consultations of the XVIIIth, 1980, century relating to the Andaman Islands'. *The Indian Antiquary*, 29, pp. 103–6.

24 Denning, op. cit. 1980, pp. 18, 124–29; 1992. *Mr Bligh's Bad Language: Passion, Power and Theatre on the Bounty*. New York, Cambridge University Press.

25 Lieutenant Colonel Albert Fytche. 1861. 'A note on certain aborigines of the Andaman Islands'. *Journal of Asiatic Society*, 30, pp. 263–7 (insert F 6 from MSW). He notes that in order to make proper observations and learn about the Andamanese, the captured natives were taken to Rangoon, but this was not very successful. This lack of success was, apparently, mainly due to the fact that the captors' language was mostly imitated by the captives and, in order to learn the language of the tribals, it was important to observe them as a larger group interacting among themselves. Another description of contact events is recorded by: Symes M. 1800. *An Account of an Embassy to the Kingdom of Ava, Sent by the Governor General of India in the Year 1795*. London, W. Bulmer and Co., pp. 131–32. Two young women, allured by the temptation of fish, were secured, and brought on board a ship at anchor in the harbour; the captain treated them with great humanity. They soon got rid of all fear of violence, except what might be offered to their chastity, which they guarded with unremitting vigilance. Although they

had a small apartment allotted to themselves, and had no real cause for apprehension, one always watched whilst the other slept; they suffered clothes to be put on, but took them off again as soon as opportunity offered, and threw them away as useless encumbrances. When their fears were over they became cheerful, chattered with freedom, and were inexpressibly diverted at the sight of their own persons in a mirror; they were fond of singing, sometimes in melancholy recitative, at others in a lively key, and often danced about the deck with great agility, slapping their posteriors with the back of their heel. Wine and spirituous liquors were disagreeable to them; no food seemed so palatable as fish, rice, and sugar. In a few weeks, having recovered strength and become fat from the more than half famished state in which they were brought on board, they began to think confinement irksome, and longed to regain their native freedom. In the middle of the night, when all but the watch man were asleep, they passed in silence through the captain's cabin, jumped out of the stern windows into the sea, and swam to an island half a mile distant, where it was in vain to pursue them, had there been any such intention; but the object was to retain them by kindness, not by compulsion, an attempt that has failed on every trial. Hunger may induce them to put themselves in the power of strangers; but the moment that want is satisfied, nothing short of coercion can prevent them from returning to a way of life, more congenial to their savage nature.

26 Ritchie, op. cit. pp. 47–9.

27 Ibid.

28 Symes, op. cit. p. 135.

29 Man, op. cit. 1885, p. 92.

30 Portman, op. cit.; Ball, V. 1897. 'Visit to the Andaman Home'. *Indian Antiquary*, 26, pp. 170–74; Mathur, L. 1984. *Kala Pani, History of Andaman Nicobar Islands*. New Delhi, Eastern Book Corporation; Man, op. cit. 1885, p. 262.

31 See Cooper, Z. 1990. 'The end of "Bibipoiye" (dog not) Daya in the Andamans'. B. Meehan & N. White (eds), *Hunter-Gatherer Demography, Oceania Monograph 39*. Sydney, University of Sydney; Danda, D. 1987. 'Little Andaman and the Ongee'. *Human Science*, 36, pp. 66–91; Myka, F. 1993. *Decline of Indigenous Populations: The Case of the Andaman Islanders*. Jaipur, Rawat Publications.

32 Taussig, M. 1993. *Mimesis and Atterity: A Peculiar History of the Senses*. New York, Routledge.

33 See Hellard, S. 1861. 'Notes on the Andamanese captured at Port Blair'. *Journal of the Asiatic Society of Bengal*, 30, pp. 259–63; and Sarkar, op. cit. for details on the captive Jarawas in Port Blair in the post-independence context.

34 Houghton, J.C. 1861. 'Papers relating to the aborigines of the Andaman Islands'. *Journal of Asiatic Society*, 30, pp. 251–258.

35 Vidyarthi, L. 1976. 'Development plans of the tribes of Andaman and Nicobar Islands; An action oriented report'. *Journal of Social Research*, 19(2), pp. 74–85.

36 Port Blair Police HQ files.

37 Sarkar, op. cit.

38 Port Blair, 10 November 1993, pp. 1–2.

39 Part of the reason for this is the importance given to the burial of the dead body to ensure the production of benevolent ancestral spirits within the Andamanese tribal world view (see Pandya, V. 1993. *Above the Forest: A Study of Andamanese Ethnoanemology, Cosmology and Power of Ritual*. New Delhi, Oxford University Press, pp. 80–1).

40 In support of their analysis, settlers say that the Jarawa contact parties make contact only when there is a full moon and when the sea is calm. When the weather is rough around full moon, they attack settlements. It is a fact that most of the Jarawa attacks do occur around full moon. 'Jarawas get angry when no gifts are given to them!' Settlers feel that more vigorous efforts should be made to transform the Jarawa and civilise them quickly. Some people from Kadamtala, Tirur and Ferrargunj said to me, 'Giving little gifts here and there is not achieving anything. It is just a slow and corrupt way of scheming off money in the name of tribal welfare! In fact, it is making the Jarawas learn to depend on assistance being given by the outsiders.' Certain individuals, mainly in Port Blair, are acutely sensitive to the administrative machinery and 'environmental heritage' on the island, and put forward very different reasons for stopping completely all contact with tribes like the Jarawas. In their view, the contact does nothing but destroy the autonomous, healthy and natural existence of the Jarawas as hunters and gatherers in their pristine environment.

41 Cf. Man, op. cit. 1932, pp. 120–21.

42 Some settlers are reported to run small motorboats from Wandoor, on the outskirts of Port Blair, to show tourists what Jarawas look like. A hefty price is asked for this illegal observation of 'natural, naked, wild and fierce natives' by tourists. Boatmen, like the administration's contact party, replicate the contact event by carrying 'gift items' and leaving them on the beach so that the tourists on the following boat can see the Jarawas coming out to collect them.

43 See Man, op. cit. 1932, pp. 120, 172; Pandya, op. cit. 1993, pp. 18, 111, 276; Radcliffe-Brown, op. cit. pp. 43, 83.

44 Chakraborty, D. 1990. *The Great Andamanese*. Calcutta, Seagull Books and Anthropological Survey of India.

45 Basu, B. 1990. *The Ongee*. Calcutta, Seagull Books and Anthropological Survey of India; Pandya, op. cit. 1993.

46 Warren, J. 1981. *The Sulu Zone 1768–1898: The Dynamics of External Trade, Slavery and Ethnicity in the Transformation of a South-east Asian Maritime State*. Singapore, Singapore University Press. Also Colebrooke, op. cit. p. 385.

47 The problem of keeping the tribes intact in a 'human zoo' has been an on-going debate with those who want to bring the tribes into mainstream India (Elwin, V. 1973. 'Do we really want to keep them in a zoo?' In *Ministry of Information and Broadcasting, The Tribal People of India*. New Delhi, Ministry of Information and Broadcasting, pp. 8–20).

48 See Portman, op. cit.; Temple, op. cit., pp. 109, 113.

49 See Fabian, J. 1983. *Time and the Other*. New York, Columbia University Press; Clasteres, P. 1987. *Society Against the State: Essays in Political Anthropology*. New York, Zone Books; Tausig, op. cit.

50 AAJVS (1994) *Records of the Jarawa Contacts 1980–1991*, Secretariat, Port Blair; Ritchie, op. cit. pp. 48–52; Temple, op. cit. p. 109.

51 Cf. Casimir, M. and Rao, A. 1992. *Mobility and Territoriality: Social and Spatial Boundaries among Foragers, Pastoralists and Peripatetics*. New York, Berg; Ingold, T. 1986. *The Appropriation of Nature*. Manchester, Manchester University Press.

52 Clasteres, op. cit.

3 Territory and landscape around the Jarawa Reserve

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Introduction

The Andaman Islands were historically indigenous populated by twelve distinct aboriginal groups of negrito people (Map V). Attempts to colonize the islands by the British in 1792 and permanent British control since 1858 led to the decimation of a large number of aboriginal communities collectively referred to as the Great Andamanese group of tribes. In 1947 the islands came under the administration of the Government of India and further colonization of the islands took place to accommodate displaced peoples from the Indian subcontinent. In 1956 areas were reserved by notification for aboriginal groups in the Andaman and the Nicobar group of islands (Annexure I). This paper deals with only one such aboriginal group of people referred to as the 'Jarawa'.

Methods

The subject matter of territory, territories and territoriality relates to the distribution of people within space and time. Questions of how many people there are, which groups are located where and when and why they came to be there are appropriate, but are not addressed in this essay. Research on the above is relevant to further understand the Jarawa, as at present only scanty information on such aspects of social organization within territorial space exists (Man 1883, Portman 1899, Sarkar 1990).

A lot of assumptions have been made in the recent past about the Jarawa, including the areas that they use. The survey for the present study began with visiting sites along the boundaries of the Jarawa Reserve, attempting to observe the ongoing process of social interactions and the base of mythic beliefs held by the non-Jarawa in relation to the people of the forest. After repeated visits to different areas, the subject of myth and its structural base was dispensed with as I felt it could be misleading and was not of immediate relevance. Tentative assumptions of food and water scarcity of the Jarawas were examined by visiting the fringe areas and recording the numerous common resources available to the settlers as well as the Jarawa, thus establishing a logical conclusion dispelling the notion of non-availability of critical food resources. The ongoing process of social interaction, hostilities, and use of resource sites were recorded through observation, interviews, conversation and also by visiting some areas with the settlers, bringing about indexical expressions of territory and resource rich and resource deficient regions. People's views, recollections of past incidents, knowledge of areas by use/exploitation were identified and recorded to provide a background to the evolution of territories for both the communities i.e. the Jarawas and their neighbours. Ultimately, information had to be rechecked in order to prove the veracity of claims as well as to provide a pragmatic view for investigators. The geographical area was traversed by foot and when needed by boat, though the western coast was not visited. The research pattern thus developed used ethnographic perceptions to further

understand issues between two distinct cultures; one being the settler community, which is composed of different ethnic groups, but combine together to form one conglomerate of culture and the other being the Jarawas.

The limitations of the study were primarily due to it being conducted by a single individual and over a large area. Thus, visiting sites depended on time available, and the limited empirical data that I could accumulate. Notes were often compared with other researchers and officers to validate findings and to decrease the margin of error. This paper only deals with the boundary and historical instances woven into specific regions through the evolution of a reserve for this aboriginal group. Fieldwork began in April 1998 and proceeded through the following months up to October and later in January and February 1999 depending on accessibility and the weather. Regions of major conflict were visited initially and later on I proceeded village by village across South Andaman, Baratang, and Middle Andaman ending at Louis Inlet Bay. References cited as well as other literature on the islanders was used. Cartographic references are made to maps published by the Surveyor General of India, surveyed in 1928 and published in 1942; and working plan maps of the respective forest divisions in the Andamans which delineate the Jarawa Reserve by an imaginary line as notified by ANPATR/3(1)/1,1956/57 and No. 107.7/F No. 40.243/78-TW 1979 (Annexure I, Map III). Instead of dwelling on geographic movement of the Jarawa, I attempt to instead describe the extent of the territory that has been set apart for them through colonization, and thus put forward instances of history as well as uses that people other than the Jarawas have made of this area. Moreover, our contacts, adaptations, and learnings will assist in confirming and rejecting conjectures made about these people in the absence of their ethnographies.

Territorial displacement and redefining boundaries

Over the past few decades many people have expressed their concern about the future of the remaining Andaman Islanders, given the many instances of conflict, and usurping of resources/space of the native islanders, in addition to their decline and extinction. This concern has led to a need to understand the extant surroundings in association with the boundaries of the area reserved for the Jarawa and some regions used by settlers within Jarawa territory. The where, why and how of the 'Jarawa problem', it is felt, will be clearer through a look at the Jarawa territory and its surroundings. A simpler way of explaining the 'Jarawa problem' will be to state that approximately 350 Jarawas are surrounded by about 24000 persons settled at the edge of the forest as the recorded population of the settler villages situated next to the reserve as per the Government of India Census of 1991.

Boundaries both social and geographic amongst the Andaman Islanders have evolved through many factors such as language, customary law, spatial organisation and access to resources. Such variables are applicable to most societies. Hunter-gatherer societies, in particular, define systems of

existence as well as territory occupied by the cohesive unit of peoples/tribes. The tribes of the Andamans largely distinguished themselves by area and dialect bringing about distribution across the islands of the archipelago (Map IV). The maintenance of an exclusive territory amongst these islanders offered the benefits of social cohesiveness of small groups and at the same time created a situation of a diversity of culture. Previous studies on Andamanese culture and social organisation describe the spatial organisation of Andamanese tribes as groups of people consisting of a few families to large collective groups consisting of 50 to 100 individuals. Use of different areas of the coast, mangrove and forest through the seasons to harvest resources depending on social needs, determined the distribution of these groups within specified areas.

Place names as boundaries

Customary laws defined physical and social spaces within the larger area of the island ecosystem, distinctive to a particular group existent in the region. Thus, protecting an area was conditional for their existence. Even amongst tribes friendly to each other, population distribution was region specific, though at times boundaries did overlap. The boundaries of the Andamanese were also indicated by place names, some of which are still in use. Place names usually tend to end at boundaries. The area used and occupied by specific Andamanese groups is delineated by specific names pertaining to and corroborative of, both, natural features and historic accounts that were associated with the area (Man 1883: 30–40). Through ensuring friendly relations with the Andamanese (particularly the Aka-Bea-Da, and later the Northern groups), the British knew the place names for the Andamanese campsites along the island. Cartographic descriptions of the Andaman Islands very clearly depict streams, valleys, coasts, creeks and hill ranges with Andamanese place names, indicative of the extensive use and ensuing attachment these sites had to their former occupants.

The Territory of the Jarawas

The Jarawas shared most of South Andaman Island with the Aka-Bea-Da, who became extinct soon after 1901 (Radcliffe-Brown 1922: 19, 25). These two groups were continually at war with one another, defending their respective territories. During the early stages of the erstwhile penal settlement, the Jarawas were known to occupy interior parts of the forest, whereas the Aka-Bea-Da were largely a mixture of both long shore (*aryauto*) men, creek (*adajig*) dwellers and forest dwellers (*eremtaga*). There also was another group of aboriginals resident on Rutland Island referred to as the 'Jarawa' or 'Jangil' by the friendly Andamanese during the British settlement. This group was extremely secretive and nothing much was learnt about them before they too became extinct.

The Jarawa, constantly at conflict with the Aka-Bea, were also known to use coastal areas at certain times. In one such incident in 1880, an Andamanese man was killed by the Jarawas at the Tarachang home at Port Campbell (Portman 1899, Vol II: 729). As a result of the severe population decline of the Aka-Bea-Da, causing near extinction of the people, all forested areas near the Port Blair settlement and the Andaman Homes established by the British across the island remained out of bounds. Prior to the British occupation of the islands the Jarawas inhabited forested areas from Ali Masjid in the south to Pochang in the north.

In the 1860s a track was cut from Port Blair in the east to Port Mouat in the west by the British; later another track was cut southwards towards Rangachang. In both instances Jarawa were occasionally met in peaceful encounters and were reported to only take away useful metal articles (Mathur 1985). Baratang Island separated from South Andaman Island by the Amitla Boicha passage and Middle Andaman by Homfrays Strait was exclusively the territory of the Aka-Pucikwar. In the Andaman Islands, Baratang is the only island to retain its name to the present day since the earliest times. Gerini (1909), in his study of Ptolemaic geography refers to Baratang as one of the islands named as such since the travels of both Ptolemy and Ibn Batuta. The island, earlier known to be inhabited by the Aka-Bojigyab-Da (Pucikwar) or speakers of the original language, also has patches of land exclusively vegetated by the Talipot Palm, (*C. Umbraculifera* Linn) called 'Barata' by the Andamanese. The palm assumes immense significance in Andamanese mythological beliefs as the plant is related to the evolution of the earth and human life (Radcliffe-Brown 1922: 171). During his survey of the flora of the islands between 1913 and 1920, C.E. Parkinson (1972: 268) came across an old Jarawa encampment in the midst of the palms on Baratang Island. This is one of the few early mentions of the Jarawas using this island as part of their territory. In all probability, with the gradual extinction of the Andamanese, the Jarawas were occupying areas that were inaccessible to them earlier.

Jarawas in Middle Andaman Island

Similarly, Middle Andaman Island was never known to be part of the territory of the Jarawa until recently. The island was the exclusive territory of the Andamanese tribes of the Oko Juwai, Aka Kol and the Aka Kede (Map V). The latter tribe occupied the greatest geographical area apart from the Aka-Bea and Jarawa of South Andaman (Radcliffe-Brown 1922: 16). The period of time when the Jarawas entered Middle Andaman Island is not clear but can be estimated to be somewhere between 1890 and 1910 (Portman 1899, Vol. II: 748, 749). The earliest settlement on the island was Bonnington (present day Mayabundar) and a little village of the Karens created in 1925 called Webi. Old Karens still recount incidents of sighting Jarawa around their village and in the mangroves nearby. Sound Peak (Karen vernacular-*Taolonji*), which adjoined the village was also used by the

Jarawa. A few stray camps of the remaining Andamanese were also situated in the vicinity during this period. At a later date a Bush Police outpost was established at the western base of Sound Peak. The southern part of the island was opened to forestry operations late in the British era. All the forest depots at McCarthy Valley, Foster Valley and Boreham Valley required Forest Protection Force personnel and Bush Police outposts to protect them from possible Jarawa attacks. Later, during the rehabilitation and colonizing phase of the islands after 1947, virtually every settlement required Bush Police outposts for the safety of the rehabilitated refugees. Interestingly, many old settlers are of the opinion that during the early days of settlement in Middle Andaman, the Jarawa were not as hostile as they became later on. Most 'Jarawa incidents' were of sighting the Jarawa across creeks, in the forest or near the villages (Annexure VII). Descriptions of Jarawa being shy and not defensive were common in the early period of British colonization too. During the initial phase of colonization after 1858 the British faced hostilities largely from the Aka-Bea-Da, who were soon pacified. The year 1863 marks the first attack by another group of native islanders referred to by the Aka-Bea-Da as the 'Jarawa'. Punitive and friendly expeditions were undertaken by the British to wrest control over this hostile group of islanders. Hostilities increased with the expanding settlement and colonization schemes after 1947. It was during this period that gift dropping and contact missions heralded attempts toward friendly relations with the Jarawas. After the first successful face to face contact in 1974, gifting food and metal continued with undiminished fervour, also resulting in an increase of 'Jarawa raids' into settlements for familiar articles. Questions of territoriality in this context can be addressed in various ways. The abundance of resources that could be harvested in an area was one factor for defending that area jealously. Another important issue was that the Jarawas were entering and colonizing new regions, which were becoming available to them due to decline in the Great Andamanese population. On the other hand, South Andaman, being a traditional territory of the Jarawas, was defended with intense hostility since 1872 after the establishment of the penal settlement here.

Two outcomes of hostility

The hostile and fleeting relationship of the Jarawa with others has delivered two results: it has helped to protect the territory and the people and, at the same time, has also helped in the perpetuation of ignorance among others about the Jarawas and their territories. Their overt defense along their territorial space had patterned mutual avoidance. Such behaviour, on the other hand, created a situation whereby attempts were made to win them over in addition to their exploitation of traditional space. Kinship and exclusively maintained areas thus developed resistive attitudes to the rising number of colonists. Regions of critical food resources, traditional camp sites and areas symbolic of their mythic and ecosystem dependent cosmos, as described by Pandya (1993), display the extensive links amongst the Andaman islanders, both in the past and the present; between spaces, sustenance and social growth. Thus, whether defense of territory is overt or by some form of communication, in both cases time and energy are expended to maintain its exclusivity by combat, use and occupation. These broad generalizations of territorial behaviour amongst the Andaman islanders serve to briefly illustrate exclusivity and sustenance based on cosmological as well as ecological regimes of the spirit-man-nature complex common amongst such people.

Creating the Jarawa Reserve

The Jarawa Reserve initially came into existence due to their hostility and non-compliance to needs of the colonists, from 1858 up to the occupation of the islands by the Government of India (GoI). In 1956 the GoI notified areas in the Andaman & Nicobar Archipelago as Tribal areas exclusively for the native islanders. The subsequent population influx through colonisation and rehabilitation schemes (Table III & IV) saw a number of such regions de-notified in 1979 (Annexure I, Map III, Map IV) and these were either converted into logging coupes, settlement areas for refugees

Table III /Assesment of land available for allotment in Great Andaman in 1949 (in acres)

Island	Flat Land for paddy	Sloping land for terraced paddy	Grazing & Garden land	Coconut Land	Total (acres)
N Andaman	7490	13500	14290	4430	39710
M Andaman	25305	28600	13600	4525	72030
Baratang	2160	7500	5600	2040	17300
S Andaman	3100	5550	4200	1300	14150
Total	37785	55150	37690	12295	142920

Source: Hamilton A.P.F., (1949). Colonisation in the Andamans: its effect on Forest Management and Forest Capital Plan of Forest Administrative and Executive Operations, 1949, Appendix I. In Dhingra, Kiran (2005). *The Andaman and Islands in the Twentieth Century – A Gazetteer*. Andaman & Nicobar Administration, Oxford University Press, p. 77

Table IV /Year and State of origin of settlers 1949–61

Year	W Bengal	Kerala	Madras	Burma	Mahe & Pondicherry	Ranchi
1949	202					
1950	119					
1951	78					
1952	51					
1953	97					
1954	438	35		5		
1955	390	37	4			
1956	357	42				
1957	221	5	8		5	
1958	194	6				
1959	217		14			120
1960	250	44	17			64
1961	235	14				13
Total	2849	183	43	5	4	197
Grand Total:	3281					

Source: Statistical Outline of Andaman and Nicobar Islands, 1962, in Dhingra, Kiran (2005), *The Andaman and Islands in the Twentieth Century – A Gazetteer*, Andaman & Nicobar Administration, Oxford University Press, p. 81

or sanctuaries and reserved forests. Moreover, the physical boundary of such a reserved area was actually determined by open village farmlands and logging coupes and Bush Police outposts. The building of settlements and roads for the colonists depended on the topography of the land as well as on the contiguity with other settlements, each gradually connected by roads. The colonizing population being largely agricultural by occupation required flat lands for cultivation of crops. Valleys and low land tropical giant evergreen forests were thus cleared to create a living space for the colony. In Middle Andaman, the eastern half was used for settlement, except in the northern part where both the eastern and western coasts were used for the purpose. Clear felling in flat lands and valleys, establishment of many Bush Police outposts and logging operations in different coupes succeeded in herding the Jarawas towards the west coast. The northern half of South Andaman Island remained vegetated by primary rainforest until construction of the Andaman Trunk Road and subsequent forestry operations. The forests were thus divided into tribal reserve areas and reserved forest areas. Control of such areas by the colonists was achieved through persistence and maintained by combat and use of firepower. The conversion of primary rainforest through timber extraction and the creation of plantations of commercial timber species has reduced the diversity of the forest and opened

it to use by the colonists. Forestry operations adjacent to the reserve in South Andaman Island, continued inspite of the Jarawa resistance until 1996. In that year a party of timber extraction personnel at Puttatang were surrounded by 60–70 Jarawa. A few labourers were injured and some were also killed. Throughout the 140 years (1858–1998) of colonisation the number of Jarawa killed during their resistance toward the growing colony, however, will never be known.

Discussion

Defining boundaries

I have attempted to portray the use of the reserve by non-natives through their knowledge of certain areas that are within the Tribal Reserve. Some regions have local names recognizable to those who frequently use it for various purposes. Territorial boundaries were characterized by fluidity, the degree of which varied through seasons and for varying purposes. The creation of a boundary through Bush Police camps, virgin forests, or creeks/straits is in itself fluid as both the sedentary settler population as well as the native population are always on the move, though in different capacities. For the Jarawa in former times, migrations

to traditional regions at specific seasons were common in areas such as at Tirur & Manpur. This traditional route was barricaded first by the Bush Police outpost established for the village that came later.

Adapting and learning

Adaptations and learning by experience have occurred on both sides through the period of hostilities, leading to regions being forsaken or occupied. Both the settler-hunters and the Jarawas were aware of what possibly lay in store for them once they crossed this fluid boundary. The Jarawas were known to place the comb-like tail bones of the sting ray (*Dasyatis sp.*) on paths that the intruders might use. They would also beat the buttresses of trees to warn the settlers of their presence in the early days of settlement. When such warnings were not heeded, they started ambushing all strangers entering into their territory. At the same time, the settlers living in the bordering areas and the Bush Police personnel used dogs to warn them of the presence of the Jarawas, both while poaching resources from the reserve and at home. The Jarawas on the other hand avoided rearing dogs until recently, unlike all other Andaman islanders, as their presence could be very revealing to the poachers in times of ambush. Settlers at the fringe of the reserve sometimes used wire traps to ward off raids to their plantations. One case of a settler using electric fencing was observed during my survey of Tirur village. Later in 1998 the settler died due to electric shock by accidentally stepping on his own trap.

Adaptation and learning from experience are illustrated in the following manner. For settler beachcombers, the western coastline is a productive environment where activity commences after the southwest monsoon. Flotsam such as plastic barrels, nets, ropes and occasionally ambergris that float ashore provide quick sources of income and goods. Moreover, those experienced with the region are also aware of some temporary and permanent Jarawa camps from where useful articles, including aluminium vessels supplied to the Jarawa as gifts are picked up. The main purpose of such visits is actually to search for the highly valued ambergris, which the Jarawa supposedly use as a fuel. Repeated occurrences of such visits have taught the Jarawa to hide ambergris inside tree trunks and boles, and barrels among the buttresses of trees. There are many such instances of adaptation or the learning of the tricks of avoidance from the hostility, a thorough discussion of which is beyond the scope of this paper.

The Jarawa Reserve Area

Another aspect that needs further deliberation is the area that is presently occupied by these islanders. Calculations based on statistics available with the Forest Department (Forest Statistics 1998) bring the total area of the reserve (as notified in 1979) on both South

and Middle Andaman Island and the outlying islands of the west coast to 886 square kilometres.²² However, it should be remembered that this data has not been verified for many years, nor updated using modern technical applications available. Many authors have in the past ascribed varying amounts of land area to be within the notified reserve area. Demarcation of the forest by an imaginary line has made it all the more difficult for them to be precise. More importantly, these are notions that concern the non-native islander, whereas the Jarawa still continue to use areas outside those notified in 1956 & 1979, as both their tradition and sustenance demand that they visit areas beyond the limit of any such reserve on both South and Middle Andaman Islands. Puttatang or Wibtang, Pochang (near Shoal Bay), Baratang Island and Boroin Jig are such places, which lie outside the notified area, but are still used by the Jarawa.

Resources within the reserve

The use of areas outside their territory in which fruit is picked from a plantation belonging to the settlers, is often termed as a raid. More importantly, such raids have made some people believe that the edible resources within the Jarawa area have suffered depletion. In recent years it has been speculated that there has been a decrease in the population of wild pigs available to the Jarawas. Such speculation did not consider the variety of other edible resources available in such a habitat of primary rainforest, lowlands, swamps, creeks, mangroves and the reefs at low tide, all of which are productive environments to the knowledgeable user. Another notable point is that the cultivated food items collected from the settlements, such as bananas and coconuts, are only easily accessible resources for the Jarawas and those items that have been continually gifted to them during contact trips of the Andaman Administration since 1974. The usually raided villages of Tirur, Kadamtala, Kausalya Nagar and Jirkatang all have plantations on hillsides within and adjacent to the Jarawa Reserve, unlike others fringing the area. Even though the wild pig is hunted by many settlers, it needs to be further substantiated whether as a critical resource it has declined to a level of extreme scarcity. The other users of the resource, the pig hunters from the settlements, and the inhabitants of the forest & police camps still enjoy this resource which has almost ceased to be available in most forests other than the Jarawa Reserve.

Similarly, for the settlements around the reserve, as well as those located beyond, the Jarawa Reserve remains the source of minor forest products, deer meat or water, as this virgin forest continues to be a productive environment. The patchwork of ecological niches within this territory are the last pure examples of the biological diversity of the Andaman Islands (Box III, Map VIa, VIb & VIc). It should be emphasized that the territory is not just vegetated by forest, but also contains open swamps and wetlands, mangrove, hills, perennial streams, and

22 This area has been increased to a little more than 1000 sq. km (Annexure I)

also regions where no water is available during seasonal changes. The Andaman & Nicobar Islands consist of the largest number of protected areas in any state/union territory in the country (Table VI, Box II, Map I & II). There are six national parks and ninety-four sanctuaries here. The Jarawa Reserve does not fall into this category but is designated a tribal reserve. Even so, it is the largest protected area comprising virgin forest and coast and is protected by Jarawa hostility. Protection of the protected area network as well as the tribal areas receive little attention due to factors like lack of resources, emphasis on extraction of forest resources and the priority given to development oriented programmes. Laws meant to protect these environments are rarely enforced and uncontrolled exploitation may ultimately lead to lower productivity of these environments.

The non-tribal narrative

As has been mentioned earlier, the above descriptions of territory and territoriality are not ethnographic accounts from the Jarawas. The primary sources are narratives of the non-tribals settled on the fringe of the territory or at some distance from it. A statement heard often in these narratives is that the Jarawas are a nuisance and an impediment to progress and development. On many occasions during the survey, I was told of the flat lands (low land, giant Andaman evergreen forest) going to waste because of Jarawa presence. It was often expressed that land could be productively used for agriculture, house sites for the growing population and even for constructing an airport in Middle Andaman!

The control established by creating a reserve has also created such tensions in social hierarchy wherein, the terms 'Jarawa', 'Jarawa area', 'out area', and 'Jungly' are often used derogatorily and to indicate primitiveness. The hunters and such other peoples on the other hand recognize the potential of the reserve as a source of food and income; a zone that could be exploited for its biotal resources. Such people are aware of the location of sites where resources are concentrated, the inherent nature of their availability and the routes to access them. However, these are notions and conditions, that have probably given rise to territorial behaviours both in the past and in the present. These variables also explain the presence or absence of exclusive, defended areas, and of both social and geographic boundaries. Within the territory critical and supplementary foods and other resources are dispersed, sometimes they are even mobile. This contributes to a territorial system of land and resource use in tune with the hunter-gatherer mode of sustenance. On the other hand, the sedentary populations use only a few of these resources continually, namely meat of wild animals, water and space, from areas surrounding their respective villages. Abundance or scarcity of these resources due to ecological and human factors has contributed to speculation on their availability for the Jarawas.

Instances of intrusions by settlers, such as encroachment in the Louis Inlet area, Tirur and Kadamtala have

contributed to ecological imbalances, leading to scarcity of resources and space. Forestry operations have similarly created zones that are unproductive compared to the untouched forests inside the reserve.

The reserve as a territory came into being basically through a process of colonization. The major components of the process were settlement of the refugees and other settlers, forestry operations and control of such areas by forcible means. The Jarawa have migrated from traditional areas south of Port Blair to their present region extending up to Middle Andaman Island. Areas conducive for settlement and food production have been carved out of this reserve. Many other indigenous populations have faced a similar situation in other parts of the world, when, being forced by circumstances, they chose to avoid others. The Batek De, a group of Semangs of Malaysia and the Casiguran Agta in the Philippines faced a similar situation of conflict in the past (Endicott and Bellwood 1991: 172, 181; Headland 1985: 116). The Great Andamanese have reacted through adaptation and rejection of imposed values leading to gradual extinction of both culture and the people. The Onge of Little Andaman, a shrinking population on their own island, have ceased to use many resources of their own forest as well as the benefits of their own culture and social organization in the face of acculturation and the competition for resources caused by an influx of settlers (Venkateswar 1999: 78).

The Jarawa are one of the few hunter-gatherer groups that have held their own through hostility in the face of modernity up to the present day. In all fairness given historical circumstances the creation of the Jarawa Reserve has assisted the Jarawa to cope with the external pressures. However, the trend of being dispossessed of their own resources is rising. Their sudden rejection of the traditional practices and increased dependance on some induced measures, in all probability, will only aid the process of dispossession. The Jarawa situation is bound to change, but effective measures should be adopted to avoid the Jarawa territory being completely usurped by strangers.

Recommendations

1) The recorded history of Jarawa hostility for over a period of 140 years (1858–1998) (Annexure VII) as well as the recent changes should be seen in proper perspective with the aid of our limited but increasing understanding of them. Because the Jarawas are a culturally distinct group, it has been difficult for many administrators and settlers to comprehend the issue in, and of, perspective. Usually it is the dominant community that makes decisions, as they feel they are themselves more capable of doing so. As Sreenathan (1998: 358) has put it, 'their hostile response... exposes the inadequate implementation of protection laws meant as a constitutional cover to their existence... the Jarawas have been blamed repeatedly'. Implementation of the laws to protect the forest, the people and the interest of the community as a whole is vital to their future existence.

2) It should be realized that notions of food/resource scarcity remain speculative until and unless determined by comprehensive scientific methods. Introduction of new foods and the habit of gifting coconuts and bananas could change equations, given the present responses to situations as well as the fun and curiosity with which Jarawa children have welcomed the situation. The possibility of exploiting the Jarawa using children as a medium still exists. It is obvious to the observer that adults have not been totally enamored and are still cautious as their experience with the colonizers have been different. Any resource introduction into the forests should be avoided as experience the world over has shown how introduction of species could possibly preclude extinction of other species and resources.

3) The most important need is to raise the awareness of the settlers about the native people and to dispel the myths and misconceptions about the latter. This would help create a better understanding of the history of the islands and its present condition among the majority of the island population.

4) All encroachments in the Jarawa Reserve should be removed and such activities must be prevented in the future. There has never been a vigil of the territory/reserve as a whole. Only some parts of it received attention while others have remained in oblivion. Both local and foreign poachers have the same effect on the resource base of the Jarawa. Such interferences have to be stopped with extreme determination, rather than procrastination, which has been a cause for the present state of affairs in the reserve.

5) The people who really need welfare measures are some settlers and immigrants residing around the reserve and not the Jarawa. It is due to unemployment and other problems among the former that they have carved a niche for themselves exclusively from the resource base of the reserve. If we turn our attention to such needs and adopt appropriate measures to protect the reserve, the Jarawa will be able to develop on their own terms, as the reserve will remain a repository of biodiversity to the Jarawas and the world at large in the years to come.

Account of the area

Map VII a

1 Tirur & Temple Myo

This was a high conflict region; hence a high concentration of Bush Police outposts was found here. Originally colonized by Burmese and a few Moplahs, this area was later fully occupied by settlers from the present day Bangladesh. Mangroves surround the western edge of the village, rain forest the north, and disturbed secondary forest with patches of primary forest form the eastern boundary. Police outpost No. 4 located on a mangrove mud bank at Constance Bay is the furthest away from the village. At Constance Bay

the mangrove divides into two creeks, Bajalunta Jig which flows out of the Jarawa Reserve and Tirur/Herbertabad creek, which flows out from Tirur and Manpur region. The outpost No. 3 is located about two kms inside the Jarawa Reserve and is in a valley between Mt. Chattenton and the southeast extremity of the Cholunga Range. Between outposts No. 3 and No. 4 are two more outposts 1A and Anjali Nullah. These four Bush Police camps effectively create a fence around Tirur. The Police outpost in the area known as No. 3 was dismantled recently to allow freer movement to the Jarawas within their own territory. On the west of the dismantled outpost, across a hill range, Padauk Tikri, lies a huge wetland of many hectares covered with tall grass on slushy quicksand like soil. The Jarawas are known to have occupied some edges on the marsh as campsites. This swamp was also used by the Tribal Welfare Department to airdrop food and gift articles in their attempt to befriend the Jarawas. The villagers of Tirur are also known to occasionally use the swamp to catch freshwater fishes. Buckets, utensils and even the body of a dead settler have been found here. A check dam across a stream near the dismantled camp supplies fresh water to the village. Police Camp No. 2 is situated on the eastern fringe of the village, where previously logging coupes were demarcated in the adjoining forest, but were abandoned due to Jarawa resistance (K Singh, Ranger, A&N F. D., *pers. comm.*).

2 Herbertabad/Manpur/Colinpur

These three villages are located close to Tirur and only Colinpur is partially coastal. Bush Police camps were located in these areas during the colonization and rehabilitation phase. The Jarawas have attacked and raided these villages on several occasions. Old residents of Manpur recollect instances when the Jarawa crossed these villages to collect red ochre available at Lal Tikry and also near Hobdaypur on the northern bank of Port Mouat Harbour. The Jarawas were present in Wandoor area until rather recently and the old residents of Wandoor remember having seen them fishing in the harbour.

3 Tusonabad, Ograbaraij, Anikhet, Caddle Gunj, Ferrargunj

Tusonabad and Ferrargunj are large settlements, the latter being the headquarters for the revenue area of South Andaman Island. Ograbaraij located on the southern slope of Mt. Tuson is largely populated by Moplahs whereas Anikhet and Caddlegunj are populated by the Bhanu community. This area is also well known for its hunters, with many, like those at Tirur, having destroyed Jarawa hutments. A Bush Police camp is located at the edge of the forest at Sona Nullah where a weir is constructed across the stream for supplying water to surrounding areas. A *mazhar* (grave of a Muslim cleric) is located on a hillock called Sonapahad. Extensive flat lands between the Cholunga Range and Mt. Tuson distinguishes this area from most other settlements. Another Bush Police camp is located at Hazaribagh at Ferrargunj.

4 *Beach Dera, Jhinga Nullah, Mile Tilek, Jirkatang – 2, Jirkatang – 7*

These areas are situated at the foothills, south east of the Cholunga Range and with the exception of Beach Dera and Jhinga Nullah, the places still bear Andamanese names. All these villages have Bush Police camps, except Jirkatang 7, which has a forest camp. Mile Tilek (Originally Maiili-Tilek) was also a campsite of the Jarawa (Temple 1923: 55) and tracks were cut into it during the late 19th century. Initially the place was settled by the Burmese, earning itself another name of Pagoda Nullah. This is, however, not in use anymore. These villages are largely populated by people from the Chotanagpur Plateau and are known locally as Ranchis. The other villagers are from South India. The area has been also used for an agricultural research farm, a rubber plantation and a small coffee plantation. Beach Dera was originally situated in the forest, which has partially been regenerated with remnants of small fields and orchards inside. The area is also frequented by the Jarawa and has been a region of conflict. A few years ago a temple was constructed at Jirkatang No. 2. It is visited by thousands of people during a religious festival. Fresh water sources inside the Jarawa Reserve are used to supply water to these settlements. In former times a Bush Police camp was located at Bamboo Tikry to protect forest extraction workers. Forests around this area have been extracted and have been regenerated with commercial species of timber. Creeks at Jirkatang and Mile Tilek flow into the Shoal Bay Creek, the eastern bank of which is populated by villages such as at Wright Myo, Mannarghat, Shoal Bay 15, 18 and 9. Pig hunters from this region were once known for their hunting skill and for their favourite sport of destroying Jarawa camps. Kyd Island, located at the mouth of the Shoal Bay Creek, was occupied by the Aka-Bea-Da in earlier times and their camp was called Duratang. Jatang, directly west from Kyd Island, was another site of an Aka-Bea-Da camp and the Jatang Hill was also used as a survey station during the British era (Temple 1923:59). During the punitive expeditions carried out by the British against the Jarawas in 1901 and 1902, expeditioners started from sites such as Jatang, Pochang and Port Meadows on the east coast, in addition to some places on the west coast.

Map VII b

1 *The Andaman Trunk Road, Puttatang/Port Meadows, Middle Strait*

The amendment to the Andaman Protection of Aboriginal Tribes Regulation (ANPATR) – 1956 was made in 1979 expressly for the purpose of constructing a road through the forest occupied by the Jarawa, as well as to allow timber extraction from the then virgin forests of the eastern part of South Andaman Island. The construction of the road took place in phases from the 1970's and finally became fully operational across both South and Middle Andaman Islands in

1989. Due to the stiff opposition to the road by the Jarawa, numerous Bush Police camps were constructed along its length, until it reached Middle Strait. Halfway through, the road construction was handed over to Yatrik, a division of the Border Roads Organisation. They are alleged to have laid high voltage electric wire fences to thwart Jarawa resistance and attacks. To some extent the road construction proceeded in coordination with timber extraction from the forests along the road. Forest camps and depots were constructed at Middle Strait, Poona Nullah, Katora, Bamboo Tikry, Lal Tikry and Puttatang. A timber depot and a jetty were operational at Port Meadows to facilitate transportation of logs by sea and creeks. It is obvious that these had severe consequences for the Jarawas, as it destroyed their habitat (even though some areas were historically occupied by the Aryauto sept of the Aka-Bea-Da). The implication becomes even starker when it is realized that a region near the Puttatang Creek (close to the present Puttatang forest camp) was one of the traditional permanent camps of the Jarawas, called Wibtang by the Andamanese trackers of the British days. Punitive expeditions launched in 1901 and 1902 discovered huge camps sites with sentry posts and several tracks leading to a beehive shaped hut which could probably accommodate 80–100 persons at Pochang (North) and at Wibtang (Temple 1923: 48–54). Even during the extraction of these forests, old forest labourers recount instances of encountering hunting camps of Jarawa near Lal Tikry, Katora, Napier Bay and Poona Nullah. In March 1996 a group of 60–70 Jarawa ambushed extraction workers from the Puttatang camp killing two labourers and injuring three. This incident finally succeeded in putting a stop to forestry operations in the region. Even so the area continues to be exploited for its resources by hunters. In September 1998, for instance, 317 traps were removed by Forest Department personnel from the area (*Daily Telegraphs* 1998).

Moreover, the conversion of forests to mixed commercial and monocultural timber plantations has definitely reduced the vegetative diversity of the region, and at the same time destroyed former hunting grounds of the Jarawa. Forestry operations had also introduced another source of problem for the Jarawa in the form of grazing elephants. There are numerous instances of working elephants left to forage in the forest returning with arrow wounds, and also chasing the Jarawa (F.P.F. Marcel Dung Dung *pers. comm.*, Mann 1980: 32). During the extraction and road-building period, large camps of men, machinery, dogs and cattle used to occupy stretches along the road. Finally, only the Puttatang forest camp was operational until 1996. During visits to the camp and surrounding coupes, feral dogs and cattle were observed, some without a limb or two, the results of their getting stuck in pig/deer traps laid by the settlers. Moreover, stray cattle impounded by the Port Blair Municipal Council had, on occasions, been transported to 'outer areas' such as Puttatang (*Andaman Herald*, July 16, 1998). In June 1998, while on a visit to Puttatang, I personally counted 75 heads of cattle wandering freely on the Andaman Trunk Road. Jirkatang No. 7 is an operational forest camp catering to the demand for minor forest products, such as bamboo, thatching leaves

and poles, sourced from within the Jarawa Reserve. Unlike the Puttatang camp of former times, it does not have the service of a Forest Society store or a temple, but is only a small hamlet with kitchen gardens amidst regenerated forest. The Bush Police camp at the Middle Strait jetty in former times patrolled the region up to the forest depot. The Bush Police camp at Port Meadows along with a former Bush Police camp at Lal Tikry on Baratang Island across the strait (Amitla Boicha passage) restricted Jarawa movement in the region. In the recent years the Puttatang camp has become a staging post for vehicular traffic on the trunk road.

2 Baratang Island

Traditionally the island was occupied by the Aka-Pucikwar-Da tribe, though after their extinction and also at some earlier occasion, the Jarawa were known to have occupied it at intervals. During the period between 1890 and 1899 there were many instances of Jarawa occupying Oral Kaicha Island, both the banks of Amitla Boicha passage, Mot Kunu, Baratang Island, and even areas near Flat Island in Middle Andamans (Portman 1899, Vol. II: 748).

Baratang has been extracted of timber and reforested with commercial timber plantations, except in a very few small patches. It has served as an important timber as well as minor forest produce source for the settlement.

The island has largely been settled by former workers of the Forest Department, the 'Ranchis' being the largest ethnic group here. An old forest labourer (Imil Buda, resident of Jarawa Creek Village) recounted an attack on a tramline carrying logs by the Jarawa near Jarawa Creek Village. He was in a party sent to search for the attackers, but they returned unsuccessful. Teak, Padauk, and Pyinma are amongst the main timber crops grown here, most of which are deciduous by nature. This, coupled with monocultural stands of trees has caused long dry summers, and destroyed many potential water sources. Another common feature on the island is the lack of horticultural plantations, unlike most other villages. Recently, the Jarawa have occasionally visited a few places, primarily for metal articles. During the early extraction days Bush Police camps were located everywhere on the island. This included places like Lal Tikry, Nilambur, Wrafters Creek, Pawa Jig, Luru Jig, Flat Bay, Bolcha, Papita Dera, Bamboo Nullah and South Creek; effectively thwarting any resistance from the Jarawa. In those former times, resources were more plentiful on the island and hence were used by the Jarawas on occasion after the Aka Pucikwar ceased to exist here. With the conversion of the forest into a timber plantation, and the subsequent extinction of the wild pig, Baratang has ceased to be a productive site for the Jarawa, excepting the possibility of accessing metal from settlements. Moreover, the periodic occupation of islands on the west of Baratang Island and surrounding waters by shark fishermen and crocodile poachers has prevented the use of the area by the Jarawa. Furthermore, the evergreen islands west of Baratang have been completely felled and regenerated, similarly reducing the possibility of their long-term use by the Jarawas.

Map VI c

Middle Andaman Island (South) Kadamtala

The southern region of the island is commonly referred to as Kadamtala, but consists of many small hamlets including Kadamtala. The name has probably been derived from the earlier presence of *kadam* trees (*Anthocephalus cadamba*), which are common in damp places and are used in the match wood industry. Another old name, Bania Khari, is also descriptive of the flora of the area. The *bania* tree (*Pisonia excelsa*, Blume) is also common in such damp areas. Forest extraction by the British occurred during the 1920s using Long Island and Porlob Island as the main timber depots. The southeastern areas of the main islands such as at Foster Valley, McCarthy Valley and Boreham Valley were converted into forest camps for extraction purposes. These areas border the huge mangrove and forest systems of Boroin Jig, Porlob Jig and Poti Jig, which made transportation of logs easier. Remnants of former camps can still be traced. I was able to locate two old labourers employed during the end of the British period and their memories of those days were full of the problems created by thousands of leeches and by Jarawa attacks. The Jarawas, however, do not use the area anymore. Leeches too, are also difficult to find, probably due to the area being clear felled and then regenerated. The wild pigs have also disappeared from the region due to over hunting and changes in the habitat.

The villages of Kadamtala, Uttara and Santanu were established by the GoI in the late 1950s. During this period there were about 60 Bush Police camps at various regions on both islands. The initial settlements were at Bangaon, Rangat, and Bakultala, after which lands reclaimed by clear felling were allotted to people at various places. Early settlers claim sighting both Janglis (Andamanese) as well as Jarawa. The former recognized by their dug out canoes and passive nature in comparison to the larger bands of the Jarawa. A former source of water in the middle of Kadamtalla Village (a shallow pond probably) was reportedly used by the few Andamanese living around the settlement. As in South Andaman, the construction of the Andaman Trunk Road in Middle Andaman proceeded along with forest extraction and Bush Police camps. It is most likely that the wives of some of the labourers began clearing a patch of flat land in the vicinity of extraction coupes to create space for settlement. For some years the land remained unoccupied as the people were probably hesitant to use encroached land and also due to severe hostility exhibited by the Jarawas. Even felled logs lay rotting as the fear of the reprisal prevented them reaching the sawmills. Today the settlement is occupied by immigrants from Bangladesh and is called Phooltala. In Kadamtala, the western extremities are policed by Bush Police camps at Bamboo Tikry, Yeratil Jig 10 and 11 (often misspelt Atar Jig

or Yeter Jig). Yeratil Jig 10 and 11 are located at the mouth of the creek, Yeratil Jig, which borders the Jarawa Reserve close to Lekera Lunta. Piped water to these villages is sourced from a dam built east of the check post at Bush Police camp No. 3. This is also used to hunt migrating teals (ducks) and trap fresh water fish. Kesri Dera, a forest camp, is located south of the village of Phooltala. Flat lands vegetated by giant Andaman evergreen forest are common west of Phooltala and are used by settlers as sources of timber and wild meat. In the mid eighties a settler who was kidnapped by the Jarawa while collecting firewood was taken to a camp on a hill in this region, from which he escaped the same night (Dhiren Byari, *pers. comm.* Aug. 1998). Beyond Phooltala there is another old Bush Police camp at Yeratil Jig No.9 (Yeter Jig No. 9). This camp was initially located further west, near a water hole used by the Jarawa. After the completion of the ATR it was shifted next to the road. The old camp being close to a mangrove creek was also used by poachers for hunting crocodiles at Ghana Nullah (Masoom Ali, *pers. comm.*, August 1998). Beyond this camp the road passes across mangrove creeks at Kallu Nullah, Mitha Nullah, Dhani Nullah and Kunju Nullah, all of which flow into Boroin Jig, a large mangrove creek which adjoins Porlob Island. In the earlier days the Jarawas used Porlob Island until the forest depot here became fully operational. Today the mangrove areas are still used by the Jarawas for food as well as to procure red ochre found in certain areas.

Porlob Jig No.15 is the next settlement along the road. This is a combination of a forest camp, a camp of the Public Works Department and a Bush Police camp. The Jarawa have seldom attacked this area though they are known to occasionally use the vicinity. Further along the road, forest camps are located at Charlungta, Boroinyol, and a camp at Tikka Dera (a former forest contractors camp). These camps manage the regenerated forest in the vicinity. A settlement at Kausalya Nagar came up in 1962, a year after the extraction in the area was completed. The initial hostilities have now changed into raids on banana plantations and incidents of killing cattle. A small check dam at Jarawa Tikry is one of the sources of water for the village and as the name suggests, the same source was used by the Jarawa too. Bush Police camps are located at No. 6 and further through the forest at No. 5, which then reaches the village of Kalsi.

Villagers from Kausalya Nagar who have entered the Jarawa Reserve describe vast mangrove swamps (contiguous with the Melegar Boilyu), which earlier teemed with wild teals (site called Bathakkhadi & Kanaikhadi). They also report the occasional crocodile and Jarawa hutments they come across. Reportedly, there were illegal logging camps operational in the area too. A large communal camp on top of a hill close to Flat Island was also described (probably on or close to Mt Oldham).

Map VI c

Middle Andaman (North)

Kalsi village was one of the larger extraction camps in Middle Andaman Island and a region of many Jarawa attacks. Bush Police camps at Kalsi 6, 5, 3 & 4 protected the villagers and labourers in the earlier days. The main pathway in the village is a tramline which was formerly used for transportation of logs. After the conversion of the forests here 'Jarawa incidents' have been very few as the plantations like those of Teak and Padauk have made the sites unproductive for the Jarawa. Areas near the Bush Police patrol path are today used largely by settlers for hunting wild meat. A village, Louki Nullah, which was encroached many years ago, is located on this patrol path and joins the ATR at Swadeshi Nagar. Billiground, a village north of Swadeshi Nagar, is far away from the reserve. Only a few hunters from these areas presently use the forest beyond Lamba Pahad (Mount William) and rarely use the mangrove area of Melegar Boilyu. Former Bush Police patrol paths run from Kalsi through the forest to Chainpur and Hanspuri.

The village of Chainpur is located on the north-eastern bank of the Wologa Boilyu, Chainpur Nullah, a branch of Louis Inlet. The village is not known for 'Jarawa incidents', though the reserve area is adjacent to it. Only stray incidents of the Jarawa using the forest of the area have been reported. Only one respondent recalled instances when, at times, red ochre was collected by the Jarawa in the forests close by. Access to Louis Inlet from Chainpur is easy and the creeks are used by fishermen and crab hunters and gatherers of other natural resources. At the end of Chainpur Nullah, where the creek joins Louis Inlet (Lungra Wath Boilyu) is an encroachment village of about 30 families, Sippi Tikry. Another encroached village, Khokdi Dabla/Ganesh Nagar exists further north from Sippi Tikri. Both these villages are located within the Jarawa Reserve and have grown over 10 to 15 years with decreased hostility exhibited by the Jarawa. In March 2000 I revisited the area and learnt that the Jarawas had visited Hanspuri and Sippi Tikri a week earlier to procure metal in the form of spoons, vessels and knives. They, reportedly, also took away a radio and many clothes from the villages. This reconfirmed the use of the area by the Jarawas in spite of encroachments. This also led to re-establishment of the Bush Police outpost, which had been removed in 1999. The forests south of Hanspuri are included in the Jarawa Reserve area and have been occupied by encroachers step by step. The land was cleared of shrubs and other vegetation. Large trees still remain amidst paddy fields. The Jarawas had not attacked people, but have taken away metal articles from households on many occasions. Sippi Tikry derives its name from a kitchen midden (belonging to the Akadede) located next to the creek. Khokdi Dabla derived its name from a species of fern which was once abundant in the valley and used as a vegetable by the encroachers. Recently

the Revenue Department has given the village the name of Ganesh Nagar. Thick evergreen forest and wild pigs are still abundant in the area which is still used on occasions by the Jarawas when they cross Louis Inlet along a rocky outcrop called 'Jarawa Chad' during low tide. The presence of Bush Police at Louis Inlet (also called Louis Balli) had encouraged and emboldened encroachers and others to use the area. The outpost established in 1957 was witness to severe Jarawa hostility in earlier times and thwarted attempts by the Jarawas to use the area beyond it. Nariyal Balu was a former campsite of the Jarawas on an old Andamanese (Aka Kede) kitchen midden, but in recent years the Jarawas have rarely been seen at the site. During the survey we had come across recently established Burmese camps, camps of fishermen and even an illegal logging camp. At the Louis Inlet Bay a perennial stream runs down the hillock (on which the outpost is located) into the forest. Use of the water source by the police, hunters, and the Jarawas in former times had occasionally resulted in 'encounters'. The northernmost limit of the Jarawa Reserve extends beyond Louis Inlet Bay up to the village of Hanspuri. The area was first surveyed by late Peter Ranger, a Karen settler, during the extraction activities of the PC Ray Timber Company. The presence of many elephants let loose by the timber extractors, which subsequently turned feral, earned the area the name of Hathitapu or Gajarajpuri. The first settlers who moved into the area were from Bangladesh. The village has a small marsh which is used by teals as a nesting and feeding site. This is where the name Hanspuri comes from. The wetland is designated as a wildlife sanctuary too. The fear of the feral elephants drove away all the settlers in the former years and the area is now inhabited by the Ranchiwallahs. Initially, two Bush Police camps were located in the village and with the decreased activities of the Jarawas in the area, only one remains today. 'Jarawa incidents' in the region were few and were largely restricted to raids for metal.

Beyond and close to Hanspuri are many encroached hamlets such as Balu Dabla, Naya Kattai, Sundari Khadi, Bathak Khadi, Pharsa Nalli and Karanj Khadi.

Maps VI a, b and c

Western Coast of Middle Andaman Island

Mask Island – A common campsite for shark and shell fishermen from Mayabundar.

Robert Bay and Pilot Bay – Turtle hunting grounds for settlers from Chainpur area as well as Mayabundar. The bays are known feeding habitats of sea turtles. The Jarawa are known to camp temporarily in the adjacent forest.

Rocky Point – One of the sites used by collectors of the nests of the edible nest swiftlets, *Havabil* (*Collocalia fuciphaga*), from the caves on the cliff.

Flat Island – Lacks a freshwater source, and is used by the Jarawa to hunt nesting turtles by crossing over at neap tide. Their camps are of a temporary nature on this island. Burmese and Indian poachers have often been killed on this island by the Jarawa. A narrow mangrove creek at the north of the island is used as an entry point by dinghies in order to land poachers.

Yadita – In all probability a turtle nesting beach also used in the past during the contact missions. It is an Andamanese name; the prefix refers to sea turtles (Man 1883).

Lekera Lunta and Spike Island – Both have been used as contact points to meet the Jarawa of Middle Andaman. Attempts at teaching the Jarawa horticultural practices have been experimented with on Spike Island. Both regions have been used by settlers from Kadamtala to collect sand for construction purposes. Spike Island is a common destination for hunters from settlement areas and the presence of dogs left behind from hunts are tell tale signs (H. Andrews *pers. comm.* 1998).

Bluff Island – It was used in earlier times as a station for a Bush Police camp manned by both Andamanese and non-Andamanese. The waters around Bluff and Spike Islands are also probably turtle feeding grounds (H. Andrews *pers com*).

Western Coast of South Andaman

Breakfast Bay and Bilap Bay Creeks – were used as entry points during the punitive expeditions of 1901 and 1902 (Temple 1923: 49–56).

Port Campbell – One of the large and capacious harbours on the west coast. It was used during the Japanese occupation of the islands in 1942 as an anchorage for a Dutch Submarine captained by McCarthy, the then Superintendent of Police to spy on the Japanese. From Port Campbell his party trekked to Ferrargunj to gain intelligence on Japanese activity. In 1943 another such party was sent to the same area to gain further intelligence on Japanese defence installations. The anchorage for this second vessel also was at Port Campbell (Mathur, 1985: 248, 249 and A. Michael, retired Forest Ranger present during that period, now resident of Chitrakoot village, Middle Andaman, *pers. comm.*, September. 1998). This region was originally used by an Aka-Bea-Da sept and later temporarily was a location for an Andaman Home during the late 19th century.

Montgomery and Petrie Island – The *Havabil* nest collectors collect nests from caves on these islands. Petrie Island has been used by shark fishermen and shell collectors as a camping ground. A Jarawa communal hut is known to exist in the region and has been raided by settlers in search of ambergris from time to time. Burmese and Thai poachers have also been known to use the harbour as a

hideout. The region is also used extensively by fishermen, hunters, crab and shell collectors. This part is known to them as Hiran Tikry.

Cape Barwell to Constance Bay – This area is commonly used by people from the Tirur-Wandoor region for fishing, collection of shells and hunting pigs and deer. Bada Balu, Kurma Balu and Chota Balu are vernacular references to this region.

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4 The Jarawa Tribal Reserve: the 'last' Andaman forest

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Introduction

From the inception of recorded visitations, the Andaman Islands have been known for their diversity of flora, fauna and their indigenous inhabitants. The earliest naturalists to explore these islands were the indigenous populations of the various islands, wherein they colonized and partitioned themselves spatially over many years of their existence here. Maritime explorers, who arrived much later, were able to visit only a few localities due to hostile receptions accorded to their visits by the indigenes. Even so these explorers did realize that the islands were store-houses of natural diversity unique in their isolation and even referred to the islands as 'islands of good fortune'.

Early documented accounts describe the islands and the surrounding waters as teeming with life of many forms and also as a place conducive for colonization if the indigenous inhabitants were pacified. Colonization of the islands served other purposes as well: maritime trade, the creation of a penal settlement and exploitation of the timber wealth here. The forests of these islands have been viewed with changing interest over the years – first as resources of commercial value through timber extraction, resources with which to shape rural life, and more recently as centers of island bio-diversity with nature conservation values. These interests have shaped the future of the islands after their second and successful colonization by the British in 1858 upto the present. It has determined the boundaries of forested areas protected by law and those that were cleared for subsequent settlement and manipulated through forestry practices.

Early descriptions of fauna

Descriptions of the natural history of the islands began mainly with expeditions from Europe and were limited largely to explorations of the coasts. With a few inroads being made by the creation of settlement colonies, the interiors were explored for their resources and potential for habitation. From the many accounts of visits to the islands, three stand out for their diligent records and descriptions of the islands' natural history; these accounts are of explorations and encounters with wildlife and the native population in the islands. The most comprehensive record of historical travels found within the records of the government is the compilation by M.V. Portman in 1899, during and after his tenure as Officer-In-Charge of the Andamanese. Boden Kloss (1902), the leader of an expedition in 1901 provides vivid and detailed information of their systematic exploration of the islands, including ethnological information from the Andaman archipelago and their subsequent visit to the Nicobars. The other account is by J.H. Williams (1956), a Forestry official located in Burma, who arrived after Kloss, to assess the potential of forestry operations and the use of elephants in North Andaman. His adventurous account brings out the natural beauty and richness of the islands

through experiences that are unfortunately confined to the days when the islands were what they used to be nearly a century ago and before.

Pioneering contributions to the fauna of the islands were also made through explorations and taxonomical descriptions by various people interested in ornithology – (Hume in 1873; Salim Ali; Abdulali 1964; Hussain) (Box V), herpetology (Malcolm Smith, Edward Blyth, Wall and later I. Das), entomology (Brauer, Ferrar) and by many others including collectors and naturalists such as Lt. Col. Athelston Alcock, Osmaston (1905–08), Wardlaw and Wimberley, Abott and Kloss and the Galathea expedition (1845–1847) for the survey of faunal and marine resources.

Early exploration of flora

The earliest known exploration of the flora of the islands was conducted in 1839, by Dr. Helfer, a Russian scientist who lost his life to the hostility of the inhabitants. In 1870, Kurz made a botanical exploration for his book 'A Flora of the Andaman Islands'. This eventually was not published due to his ill-treatment by the Burmese convicts deputed to assist him. He did, however, publish two reports on the flora and forests of the islands. The most comprehensive account on the islands' flora was later compiled by Parkinson (1921). This is still in use even though many genera have been revised by developments in taxonomy and further explorations by others including the Botanical Survey of India. Champion and Seth (1968) recognize nine types of forest ecosystems based on the climate, soil and location: giant Andaman tropical evergreen forests, cane brakes, wet bamboo brakes, Andaman semi evergreen forests, Andaman moist deciduous forests, Andaman secondary moist deciduous forests, southern hilltop evergreen forests, littoral forests and tidal or swamp forests. Amongst forest flora that were of economic value Padauk timber was among the first that gained commercial importance, prompting the creation of the Forest Department. This wood was also used to build a schooner, the *Lonely Lady* that was the first to sail around the world in record time in 1968, captained by Sir Alec Rose (Singh 1978).

The Forest Department

The Forest Department in the islands was created towards the end of the 19th century and was first headed by a Divisional Forest Officer, Col. M.L. Ferrar (Singh 2003). His interest in the island's administration and natural history laid strong foundations for the Forest Department's growth. He also produced the most extensive documentation of the diversity of butterflies in the islands (Mohanraj and Veenakumari 2004). The first Working Plan for the forests was prepared in 1906 by F.H. Todd. The plan was to work these forests to obtain sustained and increased

yields of timber though no regeneration techniques were prescribed. Many other officers of the Forest Department followed, continuing the explorations and assessments for working the forests. These explorations and consequent suggestions did not alter the existing pattern of working which continued to be selective and irregular and restricted to accessible areas. In 1921 the 'Clear Felling' system was introduced. Within a couple of years, however, it was abandoned and the selective system was resorted to again. After this period, B.S. Chengappa, the first Indian Divisional Forest Officer introduced the 'Andaman Canopy Lifting Shelterwood System' (Box I) to obtain natural regeneration over extensive areas as well as to increase extraction to meet growing demand. The demand for timber in the initial years was limited to local needs and there was only some export that was realized through the first sawmill at Chatham Island and later a match factory.

During World War II, the islands were under Japanese occupation during which timber was extracted to meet the wartime needs. The 1950s saw a rise in the population as settlements grew to accommodate refugees and others brought from mainland India and East Pakistan (now Bangladesh) as part of the colonization and rehabilitation schemes (Table IV). In 1952 Chengappa's Working Plan took effect with certain deviations to accommodate the need to colonize the islands with settlers from the mainland. From this time on, large flat lands and hills were cleared to make way for the settlement of refugees and other colonizers. This activity also began creating boundaries for settlement by clearing forest and tilling the land; tribal reserves for the indigenous islanders and patches of forests for forestry practices and later on as protected and reserved forest areas. In 1956, the ANPATR (Andaman and Nicobar Islands Protection of Aboriginal Tribes Regulation) was promulgated and followed up regularly with amendments (the most recent being in 2004), redefining boundaries and spaces between colonizers and the indigenes (Map III).

After the enactment of the Wildlife (Protection) Act in 1972, sanctuaries and national parks were created in 1977 to conserve and study the natural flora and fauna of the islands (Pande *et al.* 1991) (Table VI). Ever since, researchers and naturalists have visited the islands to survey and document the islands' natural history, ecology and biogeography.

At the turn of the 20th century

More recently there have been rediscoveries of rare species, site locations of migrants and ecological niches of many resident species that have/are being documented through fieldwork and surveys. There is a lot more ground to cover to understand the ecological dynamics of the islands. Probably the least explored realm of the islands lies beneath the waters that surround the islands, fringed by coral reefs, sea grass beds and shoals. This process of enquiry continues

Box I /The Andaman Canopy Lifting Shelterwood System

The concentrated 'natural generation' with the help of the 'Andaman Canopy Lifting Shelterwood System' to obtain a more uniform crop now widely practiced in Andaman forests is a practice that is tending to convert evergreen forest into deciduous forests. Meanwhile, all plywood and match wood demand is for soft wood from evergreen forests. A closer look at the canopy lifting method would clarify this point... The foresters apparently believe that the natural vegetation of these islands needs human assistance to perpetuate, as its regeneration, indicated by younger class density is very low. This is not the case. The low younger class density only reflects the stability of the plant community, the slow growth rate and complex structuring of the forest. Most of the seedlings and understorey plants that survive naturally are evergreen, indicating that through plant succession or plant community evolution, the deciduous nature of vegetation is changing to evergreen... Hence the basic assumption underlying canopy lifting management is wrong and the operation can only destroy the whole island system... By the canopy lifting system the entire floral composition is altered and more gregarious stands of select species are encouraged to grow... This method is not congenial for species conservation in an evergreen biotope... A species normally is an integrated component of a community and only with the total milieu of that community can it successfully survive. This milieu is produced together by all the components of that community. If it is modified so drastically, that its intrinsic physico-chemical and biological conditions are changed, many of the individual evergreen species may not survive in the modified environment.... The whole principle of the canopy lifting shelter wood system assumes a fairly closed canopy even after felling and a fairly dense understorey also. But actually after the extraction work, there is very little canopy remaining and the remaining sparse cover is even further thinned. This exposes the previously closed forest floor to sunlight and weeds gain entry. Increased entry of sunlight dries up the soil and heavy rain erodes and carries away all the humus rich topsoil. Seedlings of evergreen species fail to germinate and establish themselves. Poor reserves of soil nutrients and less humid conditions inevitably initiates the rapid retrogression of the area...

In other words, the entire evergreen forest cover of these islands is changing to deciduous because of this management practice. Besides there is the moot point whether under the bio-climatic and physical environmental condition obtained in Andaman Islands, a deciduous forest ecosystem can remain viable without undergoing further retrogression. This is apart from the irreparable harm it is causing to forests with over 2300 species of flowering plants already listed, among which endemism is very high, and where nearly 100 species reported earlier cannot be located in their type localities now. For about 20 species of timber value, a forest of infinitesimally greater value and diversity has been lost.

Adapted from: By Satish and Shanthi Nair; Report of the Project for Formulating a Land Evaluation Survey of Andaman and Nicobar Islands, Department of Environment, Government of India, 1983.

Box II /Protected areas and tribal reserves in the Andaman Islands – a comparison

Pankaj Sekhsaria

The small territory of the Andaman Islands has more than a 100 protected areas in comparison to the overall India figure of about 550. While this seems disproportionately large and positively disposed towards conservation imperatives, it does not reveal the entire picture. While the number of PAs is large, the total forest area of the Andamans thus protected is rather small – only about 500 sq. km or eight percent of the total landmass of 6400 odd sq. km.

This area stands out starkly against that notified for the island's tribal reserves notified under the Andaman and Nicobar Protection of Aboriginal Tribes Regulation (AN-PATR) – 1956. In addition to the Jarawa Reserve, there are three other reserves in the islands that have been created for the other aboriginal communities here – the Onge, the Sentinelese and the Great Andamanese. Their cumulative area is nearly 1600 sq. km, amounting to 25% of the landmass of the Andaman Islands.

If indeed large, contiguous pristine areas are crucial for long term conservation and the maintenance of viable gene pools, the importance of the tribal reserves is obvious. The Jarawa Reserve, in fact, is the largest single contiguous stretch of untouched and undisturbed forests that remain in the islands. The only other significant patch of contiguous and relatively undisturbed forest also happens to be another tribal reserve – the roughly 520 sq. km Onge Tribal Reserve on the island of Little Andaman. The biggest protected area, in comparison, is the Interview Island Wildlife Sanctuary that is spread over an area of 133 sq. km. A similar comparison can be extended to marine areas too. While roughly 500 sq. km of marine areas are covered by the two marine national parks in the Andamans, the marine component included under the tribal regulation is about 800 sq. km.

Beyond the numbers, and this is the other point, the quality and nature of the forests in question is greatly relevant. It is a little known fact that most of the forests of these islands, except those within the tribal reserves, have been logged for timber at some point of time in the 100 years odd history of timber extraction here. Even Interview Island had an extensive timber extraction operation in the decade of the 60s. The consequence of this is to be seen everywhere.

Significant evidence comes from the August 2003 project report of the Indian Institute of Remote Sensing and the Department of Environment and Forests of the A&N Islands titled 'Biodiversity Characterisation at Landscape Level in Andaman & Nicobar Islands using Satellite Remote Sensing and Geographic Information System'. The satellite maps clearly show the contrast between the forests within the Jarawa Tribal Reserve and those outside it. The original canopy and evergreen character of most of those forests outside the reserve and even adjoining it is now gone. They have become deciduous because of the timber extraction, or have been completely denuded to be converted to agricultural fields, horticultural plantations or settlements of thousands of settlers who have migrated here from mainland India.

and as I write new species are in the process of taxonomical description; those yet undiscovered remain to be.

During the past decade, concerns over the remaining stretches of forests resulted in investigations into forestry practices (Sekhsaria 2004), specifically in Little Andaman. This led to a Public Interest Litigation (PIL) being filed in the Calcutta High court on the illegal nature of forestry there. Another such petition concerning the state of affairs of the Jarawa (Writ Petition, No: 048/1999), filed by Shyamali Ganguli, also in the Calcutta High court sought to alleviate the conditions that the petitioner felt the Jarawa were subject to due to gross negligence by the Andaman Administration, the Department of Tribal Welfare and the Andaman Adim Janjati Vikas Samiti – a quasi government tribal welfare organization (Annexure II).

Even though the latter case was based largely on grounds of compassion it also brought into view questions on appropriate future courses of action in the administration's plan for indigenous people such as the Jarawa. These two cases eventually put an end to the large scale forestry operations (Table V) of the islands, also at the same time setting up committees to investigate and provide a way forward.

Table V /Timber extraction – Andaman Islands

Year	Quantity (cu.m)	Year	Quantity (cu.m)
1869–1929	15300	1990–91	103660
1930–50	49700	1991–92	105319
1951–62	88800	1992–93	125670
1968–83	118800	1993–94	130136
1980–81	165726	1994–95	135523
1981–82	162241	1995–96	126579
1982–83	147308	1996–97	107443
1983–84	147309	1997–98	77097
1984–85	132579	1998–99	62623
1985–86	145305	1999–2000	47617
1986–87	131888	2000–01	40053
1987–88	115801	2001–02	4711
1988–89	123678	2002–03	nil
1989–90	117746	2003–04	nil

Source: Saldanha C.J., (1989) *Andaman, Nicobar and Lakshadweep – An Environmental Impact Assessment*, Oxford & IBH Publishing Co. Pvt. Ltd. Singh, S. (2002), *Report of the Commission set up under orders of the Supreme Court on the Status of Forests and other Allied Matters in Andaman and Nicobar Islands*, Indian Institute of Public Administration, New Delhi; Anon (2005), *Forest Statistics*, Department of Environment & Forests, Andaman and Nicobar Islands, Port Blair

The Jarawa Reserve

The 'last' Andaman forest

The Andaman and Nicobar Islands are estimated to have risen above sea level about 1.8 million years ago. During this period the island masses were fragmented or united due to fluctuating sea levels of the ice ages, altering the levels of gene-flow among islands. The biodiversity and its distribution observed today in the Andaman and Nicobar Islands is a result of ocean currents, natural selection and isolation of the colonizers from surrounding landmasses. Faunal exchange among islands in oceanic environments is rare due to strong oceanic currents and the high salinity that can cause desiccation, though fauna can drift across inadvertently, on flotsam or with humans. In India today, the Andaman Islands and also parts of the Nicobars harbor some of the most pristine environments in the Indian or the Southeast Asian region. Islands of the Andaman and the Nicobar are each home to several, as yet undiscovered species (Krishnan 2006, *pers. comm.*).

The islands

The Andaman archipelago can be divided into four groups by geographical separation; the Great Andaman group consisting of North, Middle and South Andaman Islands, and the fourth being Little Andaman Island and smaller islands to its north. The Great Andaman group have smaller island archipelagoes located to the east, few to the west of North Andaman and South Andaman islands and smaller islets either in-between the larger islands or adjacent to them. The islands that are farthest away from the main group of islands are Barren and Narcondam Islands situated to the north east of the Great Andaman group. The gaps between islands in the Great Andaman group are not large, thus connectivity amongst the islands has contributed to the distribution

of various species that are found within nearly contiguous habitats (Das 1999). Niches and separation have aided evolution of some species that are endemic to certain regions in the islands.

The Andaman Islands have primarily an Indo-Myanmar faunal assemblage, while the Nicobar Islands are primarily Malayan. The terrestrial ecosystems are known to be poor in mega fauna. Coral reefs, marine fish, small mammals, avifauna, invertebrates and reptiles comprise the bulk of faunal biodiversity of the forests and related ecosystems. Within this, some species are known to prefer specific regions and habitats. Flora of the islands are diverse and composed of evergreen forests in hills and giant evergreen forests in the valleys, moist deciduous forests, swamps, beach vegetation, hill top forests, wetlands and mangrove ecosystems. The Andaman and Nicobar Island group has been recognized as a biodiversity hotspot due to its insular nature and for the high percentage of endemic flora and fauna that occur here. Overall, 9% of the fauna are endemic including 40% of the 244 species of birds. Amongst mammals, which are largely composed of bats and shrews 60% of the 58 species are endemic. There is also high endemism seen among insects, reptiles and amphibians. Plant families also exhibit high degrees of endemism, some of which are specific to certain niches and habitat types scattered sparsely through the islands (Jayaraj and Andrews 2005). The variety of habitat types thus forms the basis for conservation of many species. In the Andamans, ecosystems are being subjected to intensive colonization and manipulation. Consequently very few habitats remain relatively untouched or intact enough to allow for specie radiation and occurrence. Though colonization changed and altered many of these ecosystems, the last remaining pristine tracts comprising many of these ecosystems are today found in a few of the many protected areas in the islands; the largest, most biologically diverse and only contiguous patch being the Jarawa Reserve.

Table VI /Protected Areas & Tribal Reserves in the Andamans – a comparison

	Sanctuaries and National Parks	Tribal Reserves
Total Number	102 (95 sanctuaries & seven national parks)	4
Forest Areas protected	ca. 500 sq. km	ca. 1600 sq. km
Percentage of total area*	8%	25%
Marine Areas protected	ca. 500 sq. km	ca. 800 sq. km
Largest Contiguous Forest Area Protected	Interview Island Sanctuary (133 sq. km)	Jarawa Reserve (1000 sq. km)

* Total Area of the Andamans: 6408 sq. km

Traditional knowledge, reserve size & biodiversity conservation

The Jarawa Reserve is comprised of two large tracts of forests on South and Middle Andaman Islands (Map I & II). It also includes a few small adjoining islands that constitute Jarawa foraging territory today. Nature conservation ideals as practiced through the formation of protected areas for species and habitat protection must therefore recognize that this large tract of forest performs an important role, being the storehouse for biodiversity and traditional knowledge systems in the Great Andaman group of islands.

Relevance of traditional knowledge

Among the Andamanese a lot of traditional knowledge has died with the disappearance of their forbears and massive shifts in social and cultural ways. The Onge still maintain some of their knowledge (Pandya 1993), but practice is rare amongst the younger generation. Moreover, sedentarisation and disengagement from their environment and ongoing cultural change have not incorporated these knowledge networks into usable roles in their assimilation with larger society outside their own.

The Sentinelese and Jarawas are the only communities who continue to use their knowledge networks for livelihood security in the modern context, devoid of much interference in this realm from the outside. The Sentinelese are not in amicable contact with the outside world. It is the Jarawa that are in contact with the outside and at the same time practice and retain traditional knowledge systems of biodiversity. It is assumed that this knowledge is the basis for nature conservation in the Jarawa Reserve. In essence, their choice of livelihood, coupled with an indepth understanding of the use and partitioning of resources have contributed to continued regeneration within the reserve. This may not necessarily fall in line with our nascent and structured views of why they conserve natural resources, if indeed, they do at all. This knowledge has not been incorporated into knowledge networks that could potentially benefit nature conservation programs. By recognizing their ownership and knowledge of ecosystems a big step will have been taken to ensure the streamlined flow of information networks.

Using such a combination of traditional ecological knowledge (local knowledge) and scientific inferences can assist co-management for sustainable use by indigenous peoples and traditional monitoring methods (Moller *et al.* 2004). This partnership can not only build trust and community consensus, but also allow indigenous wildlife users and settlers to critically evaluate scientific predictions on their own terms and test sustainability using their own forms of adaptive management.

Conserving biological diversity

Biodiversity refers to the species richness of plants, animals and microorganisms in an ecosystem or habitat that have come into being over millennia of evolutionary history. The interacting systems consist of communities, which together make up ecosystems that in turn constitute the biosphere. Given the large space that the Jarawa Reserve occupies, it is apt to consider it as one large living unit such as a biosphere. Spaces to the north, south and east of the Jarawa Reserve are regions that are deficient in biological diversity due to use by settlers and clearance for their settlements and agriculture.

The design of most settlement regions incorporate either Protected forests or Reserved forests adjacent to the settlements. They have been classified in accordance with the use the forest is put to by the settlers for non-commercial uses and those forests used by the Forest Department for timber extraction. Some Reserved forests have been converted into plantations of Padauk *Pterocarpus dalbergioides*, Teak *Tectona grandis* (another introduced species), and matchwood plantations, or are mixed forests where silvicultural practices have transformed them into plots of commercial timber and undergrowth, classified by the Forest Department as 'Natural Regeneration Areas' (NRAs). In NRA regions the forest structure is manipulated for future commercial use and should not be considered a completely natural forest. These patches of forests exist along the length and breadth of the Great Andaman group of islands, in and around settlement regions and form fragments of forests that act as small islands of diversity (Map IV). In most cases these have been under intensive use and invariably are biologically deficient in comparison with natural forest areas. These forests are only stepping stones that allow the distribution/ecological radiation of species that occur in forests.

Another problem is that of forest encroachments that have gone unchecked for many years, further compounding the problem of fragmentation of habitats and decreasing space for biological diversity. Thus, if percentages of 'green cover' of the islands are to be understood better, most of such fragmented forests would contribute to the green cover in the islands. They are, however, those that have been manipulated through human exploitation and are biologically deficient.

Protected areas such as sanctuaries, national parks or tribal reserves are the only remaining examples of what was once found in these islands in the past (Table VI, Maps I, II & VIa, Box II). Most of the outlying islands and a few demarcated areas on the larger islands form part of this protected area network. The only large regions of considerable biological diversity in this network other than the Tribal Reserves (Jarawa and Onge) are the Mt Harriet National Park in South Andaman Island and Saddle Peak National Park in North Andaman Island (Gandhi 2000, Soubhadra Devy *et al.* 1998 (Box III)). These are smaller in comparison to the Jarawa Reserve and moreover encompass only few habitat types, unlike

the Jarawa Reserve and Onge Tribal Reserve, which are more holistic examples of habitat types, species richness, diversity and abundance. Thus, the Jarawa Reserve being centrally located, large, and biologically diverse, might in all probability be the most important centre for specie radiation in the Great Andaman group of islands.

Natural ecosystems in the Jarawa Reserve

Inland topography here consists of largely hilly contours that run in a north south direction, interspersed with valleys, a few of which are large and vegetated by the

giant Andaman evergreen forest type. This is a type of Dipterocarp dominated forest that exists in valleys, along the shore and along flat lands, with trees over 40m high and an evergreen canopy. In the Andamans, the last regions that contain the 'giant Andaman evergreen forest' are now restricted to the Jarawa Reserve (Singh 2003) (Maps V, VIa, VIb & VIc).

Niches and microhabitats from the forest floor upward to the canopy are ecosystems that are yet to be explored and studied. Invertebrates, fungi, and orchids are some genera that occupy such niches that are found in such old growth forests.

Loss of biological richness

The scarcity of this forest type in the Andamans is due to the clearance of lowlands and flat spaces and their conversion to agricultural fields and habitations during colonization. Similarly, wetlands and riparian forests that, in most cases, were found close to valleys and flat lands have also been converted, drained, or filled up to provide habitat conducive for settlement. These actions have caused serious environmental degradation such as continued erosion and has also threatened many species that thrive in such ecosystems, but about whom very little is presently known.

Similarly, the forestry program in the islands with its focus on timber extraction did not lay emphasis on ecosystems such as tidal/mud flats and other coastal ecosystems such as rocky shores, beaches and estuaries. Sea grass beds, coral reefs, and shoals are other ecosystems that are even less visible and thus less comprehensible to a colonizing populace unaware, as it is, of the importance of these ecosystems. As these ecosystems did not serve any commercial purpose in timber operations and moreover are not easily visible/comprehensible centers of biodiversity, they did not find place in nature conservation for many years, either. It is only in the recent past that they have found favor in the conservation ethic, within biodiversity and conservation action plans that have brought a slow change in the mindset towards nature conservation in the islands.

The Jarawa Reserve, being the last repository of the variety of ecosystems specific to the Andaman Islands, is increasingly under scrutiny by conservationists and natural resource users/exploiters. This storehouse of biodiversity and its surrounding waters allows for exploitation to be commercially viable as many regions close to settlements have now been extensively degraded. Access to regions along the west coast of the island (and the Jarawa Reserve) is not difficult and many people other than the Jarawa have a history of poaching natural resources from here.

No thorough survey or studies of the ecological constituents of the Jarawa Reserve have yet been conducted. This is largely due to aggressive self assertion with which the *Ang*, or Jarawa, protected their territory. Only scanty documentation exists. Even so it is widely acknowledged that the Jarawa Reserve has the last pristine

Box III/Patterns of butterfly distribution in the Andaman Islands: implications for conservation

M. Soubhadra Devy, T. Ganesh & Priya Davidar

The study shows that island size and habitat types are important in influencing butterflies... More species and a higher proportion of less common species were recorded from larger islands. Islands with evergreen forests had significantly more species than those with drier forests and the species number increased linearly with increase in island area with evergreen forest but not for those without evergreen forest... Even smaller islands in the South Andaman Group, such as Chester and Snob, supported more butterfly species due to the presence of evergreen forests than larger islands with dry forests in the North Andaman group... Current forestry practices tend to convert evergreen forests to a more deciduous type through selective felling and selective regeneration of commercial species. This is a cause for concern, as it will lead to a loss of butterfly (species) and probably affect other species as well... A significant proportion of the species were also rare and therefore more vulnerable to extinction with the loss of forests.

An analysis of the size distributions of the protected areas in the Andaman and Nicobar Islands shows that most reserves are small islands of <0.01 sq. km in area. The under representation of forests on large islands in the protected area network appears to be a cause for concern. Therefore, in addition to the area already under protection, forests on large islands need to be included in the protected area network. Furthermore, primary evergreen forests, which are rapidly being decimated, need to be protected on a priority basis...

There is no large reserve on the main Middle Andaman, Baratang, Rutland and the Little Andaman Islands... The Little Andaman Island is particularly vulnerable because of its isolation and its increasing pressure on forests. The butterflies on this large island were usually common species, which were phenotypically distinct from the species in the North and South Andaman Islands, although there were similar numbers of forest bird species. Therefore this island appears to be at the centre of speciation in the Andamans group. Conservation of its forests is important in order to prevent a within-species genetic impoverishment.

Source: Published in *Acta Oecologica*, 1998

tract of natural ecosystems and habitat of a variety of species found in the Andaman Islands.

The reserve is bordered along most of its eastern border by villages that were created by refugees settled here as part of the colonization programme (Maps III & IV). Some of these villages have been in existence for nearly fifty years. Most such areas were cleared for settlement, with areas that the Jarawa were known to frequent being left aside. A scrutiny of the topography of the reserve and its precincts show that the settlement areas were chosen depending on the availability of flat land, to introduce and provide conditions suitable to agriculture. The areas that are within the reserve have a more or less undulating terrain with fewer flat lands in between narrow but long valleys; some regions though are larger stretches of flat land containing the giant Andaman evergreen forests. The hills that proceed in a north-south axis are steep slopes and escarpments that combine to form hill ranges.

Range of ecosystems

Beaches, tidal flats, coral reefs, rocky shores and cliffs, flat forested lands, freshwater and estuarine swamps, mud flats, mangroves, evergreen and moist deciduous forests, cane and bamboo brakes, and giant Andaman evergreen forest are some of the major habitat types that are found within and around the Jarawa Reserve. Species found in the reserve represent nearly all endemic and rare fauna found in the Andaman Islands with the exception of species such as the Giant Robber Crab *Birgus latro* and the Narcondam Hornbill *Rhyticeros narcondami*, a large frugivorous bird found only on Narcondam Island.

The inner reaches of forests in the Jarawa Reserve are vegetated by a variety of flora that have been classified by Champion and Seth (1968). Forest palms such as *Licuala* sp., cane and bamboo brakes, hill forests, swamps and thick evergreen forests lie interspersed in the mosaic that form the tropical forests that once covered the islands, but are now restricted to such protected regions alone. Wet evergreen forests intersect these biomes alongside freshwater streams, some of which are dependent on the monsoon and dry up in summer. Endangered and endemic herpetofauna such as the Andaman cobra *Naja saggitifera*, the King Cobra *Ophiophagus hannah*, the Andaman Day Gecko *Phelsuma andamanensis* and the Andaman Clawed Gecko *Cryptodactylus rubidus* are well distributed and thrive in this natural habitat.

Sheltered bays in some places are composed of mangroves, mudflats, coral reefs and sea grass meadows. These associated ecosystems are few and found relatively undisturbed only in the Jarawa Reserve. Mangrove ecosystems that are seen along the coast extend over large spaces inward towards hillsides, fresh water sources or salt marshes. Littoral mangrove regions and forest merge toward the base of hills and flat lands, and in some places form open spaces where ecological succession by various plants, palms, grasses and trees can be seen.

Saltwater Crocodiles *Crocodylus porosus* are found in most mangrove creeks, with estuarine and freshwater marshes upstream forming nesting habitat for the species. This habitat type is rare and has vanished in settlement regions. The Jarawa Reserve now has the few remaining nesting habitats for a species that was once distributed throughout the islands. Crocodiles are the top predators in the food chain of mangrove ecosystems. They occur as far upstream as the presence of tidal influence and also beyond, in freshwater or saline marshes. Nesting habitat is influenced by many parameters, the safety of the young also being primary in locating areas with least disturbance (Messel and Vorlicek 1987). Settlement areas are bereft of this parameter (Andrews and Whitaker 1994, Choudhury and Bustard 1979) making areas such as the Onge and Jarawa Reserve the last refuge for the survival of the species in the Andaman Islands.

Wild pigs *Sus andamanensis*, are also found in large numbers in the reserve and are the primary protein source of the Jarawas. Patterns of hunting wildlife by the Jarawa have not been holistically documented, but they are known to be dependant on seasonal and cultural patterns (Kumar and Biswas 2002). Subsistence hunting by indigenous islanders is very different from the hunting patterns employed by settlers, where commerce plays a role. This, in fact, is the basis for the existence of wild species in tribal reserves such as the Onge and Jarawa Reserves.

Small islands are found within a harbour at Port Campbell in South Andaman and in between or close to the larger islands. The largest of these is Flat Island located off Middle Andaman Island. These islands are visited from time to time by the Jarawa to forage in those areas found to be productive for livelihood. Species such as sea turtles, swiftlets, sea snakes and beach birds use the shores to nest and to forage.

Fresh water is not easily available in most of the small islands, except Spike Island. On the larger islands, fresh water sources are many and in most places determine dwelling locations of the Jarawa. Beach forest is primarily composed of *Manilkara litoralis* groves or those mixed with species such as *Barringtonia asiatica*, *Terminalia chaplasha*, *Terminalia manii* and *Ponagmia glabra*. Channels alongside beach forests in some places are drainages for rainwater and in some places, the end of small forest streams.

Exploitation by the outside world

Spotted deer, wild boar and monitor lizards are the larger animals that use the forests within the Jarawa Reserve and in some places can be seen in plenty. These are easy targets for poachers from the settlements in search of wild meat. The Jarawa do not consume deer meat but have been known in recent times to assist poachers who have established prior contact with them.

The shoreline is a region that has presumably been utilized by the Jarawa ever since the indigenous demographic profile changed during the colonization process.

The Jarawa were known to utilize the inner reaches of forests (Man 1883 and Portman 1899) with only a few coastal areas under their control. Hutments along the beach close to water sources are their domains during different seasons along the western coast fringed with coral reefs and rocky shoals. These inter-tidal zones are resource zones that the Jarawa utilize to find fish and shellfish for consumption. Many reef flats have been exposed (Andrews and Vaughan 2005) after the recent earthquakes of 2004, changing the ecosystem that is used by the Jarawa for collecting food resources. In recent years fishermen and lobster hunters have exploited these reefs with the growing commercial interest in the export of these marine resources. Along with local poachers, Myanmarese and Thai poachers have also used these regions, largely for fishing and collection of sea cucumbers and sea shells.

Confrontations between the world outside and the Jarawa have largely occurred during such attempts to exploit these rich natural resources within the Jarawa Reserve. This has resulted in a silent but strong desire to find a way of reducing conflict and hostile confrontation. In spite of governmental policy of designating zones and boundaries for occupancy and use, administrative tools such as policing and patrolling by departmental personnel have never been consistent or effective over the last five decades. Tools and infrastructure have never been contemporary or effectively utilized to avoid such situations of conflict. On the other hand, establishing relations with indigenous tribes in the islands has always been the primary focus in tribal welfare, viewed without recognizing the sustainable nature of their existing economic form of livelihood.

Whereas the future survival of the Jarawa has been the reason to demarcate the tribal reserve, its protection and conservation objectives have been achieved by default, thanks mainly to the hostility and aggression of the Jarawas. Given the growing trends in exploiting wildlife resources from reserves such as for the Onge and also the Jarawa, one can only speculate if naturally occurring faunal species will be seen in such densities in the future.

Some ecosystems and threatened species in the Jarawa Reserve

Mud flats – Tidal flats or mud flats are coastal regions where changes in water level are frequent (in consonance with tidal periodicity). These serve as feeding and breeding grounds for many varieties of fish, sea cucumbers, molluscs, crustaceans and birds. These expanses of mud also serve as basking spots for reptiles such as the saltwater crocodile. Some of the bird species that use such regions include terns *Terna* sp., crab plovers *Dromas ardeola*, curlews *Numenius arquata orientalis*, whimbrels *Numenius* sp., stints *Calidris* sp., sand pipers *Tringa* sp., ruddy turnstones *Arenaria interpres* and also teals.

In the Jarawa Reserve large mud flats are found at Constance Bay, Port Campbell, the shore on Middle Andaman Island opposite Flat Island, Robert Bay, Louis

Inlet, Port Meadows and in Shoal Bay creek. Mud flats also support sea grass meadows that are grazing grounds for the green sea turtle *Chelonia mydas*, and the rare dugong *Dugong dugon*.

Mangrove habitat – Some of the most extensive and productive mangroves are also found in the Jarawa Reserve at Tirur, Cape Barwell, Port Campbell, Homfrays Strait, Middle Strait, Yeratila Jig, Roberts Bay, Louis Inlet, Putatang, Port Meadows and along Shoal Bay creek. Of these the largest areas occupied by mangroves are at Shoal Bay, Port Campbell and in Louis Inlet. Poachers and local fishermen are known to use these regions to catch crabs, fish and in some instances, also crocodiles (Andrews 2000). Fruit bats also use some of these mangroves to roost in large numbers. Yeratila Jig close to Lekera Lunta, is one of the most species rich mangrove creeks in the islands. This creek is also home to a healthy population of crocodiles. All these mangrove ecosystems were found to be breeding grounds and habitat for salt water crocodiles.

Beaches: sea turtle nesting areas – For many years sea turtle nesting areas in the Jarawa Reserve were not easily accessible (apart from Flat Island). A recent survey substantiated sea turtle nesting activity at Bada Balu, Chota Balu, Breakfast Bay in South Andaman, a beach north of Foul Bay, Barlakabil, Yadita, Flat Island, the sea shore off Flat Island, Hump Island and a beach at Roberts Bay.

Previously, Hump Island and islands further north such as South Reef and North Reef were suggested to be included in a proposed marine park due to high incidence of sea turtle nesting, the presence of sea grass beds, coral reefs and feeding grounds for turtles, dugongs, crocodiles, sea snakes and a variety of marine life (Bhasker 1993).

Flat Island and Hump Island are used by the Jarawa to collect sea turtle eggs, and also the animal itself, for food. A single record of nesting by the globally endangered leatherback sea turtle has been recently made in the Jarawa Reserve (*Chandi in prep.*). Sea snakes, *Laticauda colubrina* and *L. laticaudata* are also known to use these and other beaches and rocks (Hump Island, Flat Island and Tuft Island) to nest, and rest. An endemic gymnosperm, *Cycas rumphii* is also common on most of the small islands; its seeds are processed by the Jarawa for food.

Sea grass beds – Sea grass beds are feeding grounds for dugongs and green sea turtles. Dugongs are rare and occasional sightings have been made from the Jarawa Reserve. This species was seen frequently by the few fishermen and hunters who used to visit the Jarawa Reserve area more than 25 years ago. In all probability the Jarawa do not hunt the species, as they do not use sea-going canoes. Information collected from old fishermen and hunters from settlements acquainted with these areas point out that Cape Barwell, Port Campbell, Breakfast Bay, Lekera Lunta and Flat Island are areas that possess this submarine ecosystem. Further surveys will be needed to substanti-

ate this. Strangulation in fishing nets and opportunistic hunting has led to a decline of this rare marine mammal even from the Jarawa Reserve.

Birds – Birds are not hunted as food by the Jarawa and thus exist in large numbers. Recently the Jarawa Reserve has been declared an 'Important Bird Area' by Bird Life International and the Bombay Natural History Society (Islam and Rahmani 2004). The endangered edible nest swiftlet *Collocalia fuciphaga* has been recorded in the Jarawa Reserve from Montgomery and Petrie Islands in Port Campbell, and in limestone cliffs south west of Pilot Bay in Middle Andaman Island (Sankaran 1998). These birds have declined in numbers due to over exploitation of their nests, which stymied chick recruitment. A recent survey discovered another site at Breakfast Bay in South Andaman. Fortunately this site is too small for humans to enter and is thus protected.

Forest birds abound as fruits, insects and the variety of trees provide excellent habitat. The Nicobar pigeon *Caloenas nicobarica* has been spotted at Louis Inlet and more recently at Yadita. This species is distributed in other parts of South East Asia as well and is found in the Andamans in North and Middle Andaman Islands. Beach birds such as beach thickknee *Esacus neglectus*, reef egret *Egretta sacra*, sand piper *Actitis hypoleuc* and shank *Tringa* sp., and also sea birds such as sea eagles *Haliaeetus leucogaster* and terns *Terna* sp. have been seen nesting on outlying islands such as Hump Island, Tuft Island, Flat Island and Defence Island.

The Andaman teal *Anas gibberifrons* and the whistling teal *Dendrocygna javanica* are distributed across the Andaman Islands. Some of the largest feeding grounds and nesting habitats are found in the Jarawa Reserve at Constance Bay (they have been spotted foraging on the mud flats at Constance Bay and also in a freshwater swamp north of Tirur village in the Jarawa Reserve), and at Kanai Khadi and Bathak Khadi in the Jarawa Reserve west of Kausalya Nagar in Middle Andaman Island (Chandi 2002). These freshwater swamps are found in between valleys and close to freshwater streams into which they drain. These are the last examples of natural freshwater ecosystems that were once distributed across the Andaman Islands. Many other water birds, endemic freshwater fish, molluscs and plants are also found in this ecosystem.

The nypa palm – *Nypa fruticans* is a mangrove palm that is considered threatened in the Andamans. It is found at the following localities in the Jarawa Reserve: Ike Bay creek, Bilapa Bay creek, Putatang creek, R.K. Nullah and Dhani Nullah along the ATR in South Andaman Island. In Middle Andaman Island it is found at Yeratila Jig, an unnamed stream off Tanmuguta, C.D. Nullah, B.D. Nullah, and Kunju Nullah along the ATR and a few areas in Louis Inlet.

Other areas outside the Jarawa Reserve where it is found are as follows: Dhani Khadi, Betapur creek, Karmatang creek, Burma Dera and Webi creek (planted by settlers in both areas) and Photo Nullah and Dhani Nullah on Rutland

Island. On Little Andaman Island, the palm is found at Tae-ea and Butler Bay creeks along the east coast.

Effects of the earthquake of 2004 – The western coast of the Jarawa Reserve has risen exposing previously submerged reefs following the earthquakes of December 2004 (Andrews and Vaughan 2005).

The gradient of the rise is toward the north of the Andaman Islands. Sailing close to the islands is now dangerous in most places with threatening shoals and corals lurking below the sea surface. Flat Island which used to be an important sea turtle nesting beach is now surrounded by exposed reef. Green sea turtles *Chelonia mydas*, hawksbill sea turtles *Eretmochelys imbricata* and occasionally olive ridley sea turtles *Lepidochelys olivacea*, used to nest here in large numbers (Bhasker 1993).

Conclusion

Over the past two centuries interest in the natural history of the islands has enamored many an explorer, researcher and visitor. Over this time the islands have changed in demographic composition through colonization and usurpation of spaces. Those explorers often expressed concern about conservation of nature, which was eventually achieved through the demarcation of forested areas and further to protected areas and tribal reserves.

In this process the indigenous peoples of the islands have 'made way' for colonizers with many objectives other than the conservation of nature. In a personal letter to a naturalist, a former Member of Parliament has stated that in his opinion 'either the islands be a paradise for wild animals and tribes or a center for livelihood of the many thousands who have settled, encroached and arrive to find their destiny in these islands', something for which he was responsible to a great extent.

It is unfortunate that such decision makers fail to correspond or connect nature conservation and human livelihood, but rather segregate ethnic identities, natural resources and development in a skewed perspective of personal achievement rather than achievements for all of natural diversity. This stems from the inability to recognize nature nurturing livelihoods and how hunting and gathering forms of livelihood are economic transactions with the ecosystem, quite like a stock market fluctuating on demands, supplies, profits and losses.

The Jarawa Reserve exemplifies this sort of coexistence that people such as the Jarawa have achieved over millennia. The settlements on the edge and around the reserve are dependent on the ecosystem services provided by the forests and biodiversity within the reserve. Rather than polarize nature conservation and development, it would serve the indigenous islanders and settlers to appreciate the benefits of each other's ideologies and work towards producing a conducive environment for sustainable livelihoods and progress. The Jarawa Reserve needs to be viewed as a living space that could let us understand such philosophies providing, at the same time, a glimpse into the past and the present.

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5 The Jarawa Tribal Reserve: an Important Bird Area

First Published in 2004. 'Important Bird Areas in India: Priority sites for conservation'. Islam, M.Z. and Rahmani, A.R. (eds). Indian Bird Conservation Network, Bombay Natural History Society and BirdLife International, UK

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Introduction

Important Bird Areas (IBA) are places of international significance for the conservation of birds at the global, regional or subregional levels; are practical tools for conservation; are chosen using standardized, agreed criteria applied with common sense; must, wherever possible, be large enough to support self-sustaining populations of those species for which they are important; are places which can be defined and distinguished from surrounding areas, and which are feasible to conserve; where possible preferentially include, where appropriate, existing Protected Areas; are not appropriate for all bird species and, for some, are only appropriate in parts of their range; should form part of a wider, integrated approach to conservation that embraces sites, species and habitat protection.²³

General description

The Jarawa Reserve area extends in a long strip from Middle to South Andamans along the western coast. The area has been set aside for the Jarawas, an aboriginal tribe of hunter-gatherers entirely dependent on the forest and marine resources for their existence (Gandhi 2000). Until recently, they were hostile and isolated from modern civilization, but now there is increasing contact. Rodgers and Panwar (1988) recommended that the site should be declared as a wildlife sanctuary, to allow the inhabitants to pursue their traditional way of life and to give a strong deterrent to any incompatible land use. The area was designated the Tribal Reserve for Jarawas under the Andaman and Nicobar Islands Protection of Aboriginal Tribes Regulation (ANPATR) 1956 – This area is characterized by the presence of different forest types including evergreen, moist deciduous forests, mangroves and large

²³ For more details regarding the definitions, objectives, methods and identification of an IBA please see: Islam, M.Z. and Rahmani, A.R. (eds). 2004. *Important Bird Areas in India: Priority sites for Conservation*. Indian Bird Conservation Network, Bombay Natural History Society and Birdlife International (UK); pp. 30–38.

Box IV/ The Jarawa Reserve

IBA Site Code:	IN-AN-07
Union Territory:	Andaman and Nicobar Islands
District:	Andaman
Coordinates:	12° 40' 00" N, 92° 47' 60" E
Ownership:	State
Area:	91,108ha (Middle and South Andaman)
Altitude:	7m
Rainfall:	3,800mm
Temperature:	20°C to 32°C
Biogeographic zone:	Islands
Habitats:	Tropical Wet Evergreen, Tropical, Semi Evergreen, Littoral Forest
IBA Criteria:	A1 (Threatened Species), A2 (Endemic Bird Areas 125: Andaman Islands)
Protection status:	Not officially protected

Box V/Endemic birds in the Jarawa Reserve

Endemic Bird Area 125: Andaman Islands

Andaman Serpent-Eagle	<i>Spilornis elgini</i>
Andaman Crane	<i>Rallina canningi</i>
Andaman Wood-Pigeon	<i>Columba palumboides</i>
Andaman Cuckoo-Dove	<i>Macropygia rufipennis</i>
Andaman Coucal	<i>Centropus andamanensis</i>
Andaman Scops-Owl	<i>Otus balli</i>
Andaman Hawk-Owl	<i>Ninox affinis</i>
Andaman Black Woodpecker	<i>Dryocopus hodgei</i>
White-headed Starling	<i>Sturnus erythropygius</i>
Andaman Drongo	<i>Dicrurus andamanensis</i>
Andaman Treepie	<i>Dendrocitta bayleyi</i>

Data deficient

Andaman Crane	<i>Rallina canningi</i>
---------------	-------------------------

Near threatened

Andaman Serpent-Eagle	<i>Spilornis elgini</i>
Andaman Wood-Pigeon	<i>Columba palumboides</i>
Andaman Cuckoo-Dove	<i>Macropygia rufipennis</i>
Andaman Scops-Owl	<i>Otus balli</i>
Andaman Hawk-Owl	<i>Ninox affinis</i>
Andaman Black Woodpecker	<i>Dryocopus hodgei</i>
Andaman Drongo	<i>Dicrurus andamanensis</i>
Andaman Treepie	<i>Dendrocitta bayleyi</i>

perennial freshwater streams, large freshwater marshes and the largest remaining stands of nypa palm *Nypa Fruticans* (Andrews and Sankaran 2002).

Avifauna

The hostility of the Jarawas towards intruders in their territory has made it impossible to carry out detailed surveys of the flora and fauna of the reserve. Ravi Sankaran (*pers. comm.* 2002) estimates the presence of at least ten Restricted Range species of birds, of which one, the Andaman Crane *Rallina canningi* is globally threatened. It is, however, evident that the reserve area is rich in living resources as it provides sustenance to the Jarawas by way of edible and medicinal plants, meat, fish, wood and material for building their huts, and other requirements (Gandhi 2000).

Recent surveys have shown that the forest of Middle Andaman is rich in bird and butterfly diversity (Davidar et al. 1995), and a large number of endemic and threatened plants. The population of the endemic Andaman wild pig *Sus scrofa* appears to be healthy. A substantial portion of the best forested areas of the Middle and South Andaman is covered by the reserve, so it is expected to be exceptionally rich likewise (Gandhi 2000). Except for the Narcondam hornbill *Aceros narcondami*, which is restricted to Narcondam Island (Ali and Ripley 1987, Grimmett et al. 1999), and the Nicobar megapode *Megapodius nicobariensis* which

was earlier distributed in the Andamans and is now extinct in these islands, all the extant endemic species identified by Stattersfield et al. (1998) from this Endemic Bird Area are likely to be seen in the Jarawa Reserve. Moreover, many endemic subspecies of birds (Abdulali 1964, Vijayan and Sankaran 2000) are also found in this Important Bird Area (IBA). Therefore, the conservation value of this IBA is immense.

Table VII /IBAs in the Andaman & Nicobar Islands

IBA site codes	IBA site name	IBA criteria
IN-AN-01	Austin Strait	A1, A2
IN-AN-02	Barangtang-Rafters Creek	A1, A2
IN-AN-03	Car Nicobar	A1, A2
IN-AN-04	Chainpur and Hanspuri	A1, A2
IN-AN-05	Great Nicobar, Little Nicobar	A1, A2
IN-AN-06	Interview Island Wildlife Sanctuary	A1, A2
IN-AN-07	Jarawa Reserve (Middle Andaman & South Andaman)	A1, A2
IN-AN-08	Kadakachang	A1, A2
IN-AN-09	Landfall Island Wildlife Sanctuary	A1, A2
IN-AN-10	Little Andaman	A1, A2
IN-AN-11	Mahatma Gandhi Marine National Park	A1, A2
IN-AN-12	Mount Diavalo/ Cuthbert Bay	A1, A2
IN-AN-13	Mount Harriett National Park	A1, A2
IN-AN-14	Narcondam Island Wildlife Sanctuary	A1, A2
IN-AN-15	North And South Sentinel	A1, A2
IN-AN-16	North Reef Island Wildlife Sanctuary	A1, A2
IN-AN-17	Rani Jhansi Marine National Park	A1, A2
IN-AN-18	Saddle Peak National Park	A1, A2
IN-AN-19	Tilangchong, Camorta, Katchal, Nancowry & Trinkat	A1, A2

Recently, Rasmussen and Anderton (*in press*) have upgraded many subspecies to specie level. For instance, the earlier three subspecies of pompadour pigeon *Treron pompadora* have been upgraded to species, and one (new) species, *Treron choloptera* has been found in Andaman and Nicobar Islands. Andaman pompadour pigeon is still common and may not be of much conservation concern, but there are some cases where the 'new' species has very restricted distribution and may be extremely rare. Earlier, as a subspecies, it was not considered of great conservation concern, therefore not listed by BirdLife International (2001), but now it must be reassessed. A good example is the subspecies of the barn owl *Tyto alba* found in Andaman, *T. alba deroepstorffi*. Ali and Ripley (1987) named it as Andaman barn owl and state 'evidently a very scarce resident in the Andaman Islands... not recorded from the Nicobars.' Rasmussen and Anderton (*in press*) treat it as a

Box VI /IBAs and Tribal Reserves – the unique situation in the Andaman & Nicobar Islands

By Pankaj Sekhsaria

The Andaman & Nicobar Islands without doubt, occupy a unique position in the context of the Important Bird Areas (IBAs) in the country. Spread over an area of a little more than 8200 sq. km, the islands occupy only about 0.25% of the total landmass of the country. Significantly, however, they are home to 12% of the endemics found in the country. There are 19 IBAs that have been already identified here (4% of the total 465); and the restricted range species reported are 13 from the Andamans and nine from the Nicobars.

The two data deficient species from India listed in the Red Data list of the IUCN are also found in these islands: Andaman crane *Rallina canningi* and Nicobar Scops-owl *Otus alius*.

Of particular significance in the A&N islands are those forest areas that have been designated as tribal reserves under the Andaman & Nicobar Protection of Aboriginal Tribes Regulation (ANPATR) – 1956. This includes the entire group of the Nicobar Islands (about 1900 sq. km) and four tribal reserves in the Andaman Islands that cover nearly 1400 sq. km. of some of the most pristine forests that still survive in these islands. In the Andamans these are named after the four aboriginal communities that have been living in these islands for at least 40,000 years; the Great Andamanese, the Jarawas, the Onge and the Sentinelese.

Now what's very interesting in the context of the islands is that six of the 19 IBAs in the islands are those areas that are designated as tribal reserves under the ANPATR. These include the islands of Car Nicobar, Great Nicobar, Little Nicobar, Tilangchong, Camorta, Katchal, Nancowry and Trinkat all in the Nicobar Islands (they have been together classified into three different IBAs) and the Jarawa Reserve, Little Andaman, and North and South Sentinel in the Andaman group of islands...

Source: Extract from a larger paper with the same title published in *Mistnet*, Volume 5, No 3 & 4, July–December 2004. Published by the BNHS, *Mistnet* is a newsletter of the Indian Bird Conservation Network

species, which means that it is perhaps one of the endemics and rare species of the Andaman Islands. As the forest is largely intact in the Jarawa Reserve, the Andaman barn owl is likely to be present in fairly good numbers in this site. Status survey of this bird is urgently required.

Other key fauna

The Andaman wild pig *Sus scrofa andamanensis*, Andaman masked palm civet *Paguma larvata tytleri*, introduced chital *Axis axis*, and flying fox *Pteropus melanotus* are usually seen here. This site also supports a unique diversity of herpetofauna and the rare and endemic species of reptiles such as Anderson's pit viper *Cryptelytrops andersoni*, small-eared island skink *Lipinia macrotympanum* and Andaman water monitor *Varanus salvator andamanensis* (Anon. 2001).

Land use

- Nature conservation and research
- Tribal Reserve

Threats and conservation issues

- Introduced chital pose a major threat to indigenous flora
- Construction of roads
- Immigration of mainlanders and its ecological impact
- Traffic on the Andaman Trunk Road
- Encroachment into the reserve

Andrews and Sankaran (2002) mentioned that the greatest threat to the reserve is the Andaman Trunk Road which cuts right through it, causing irreversible damage and disturbance to the forest. The road has brought with it roadside settlements, some of which have now become small townships. There is continuous traffic on the road. People from the settlements encroach on the reserve area and deplete the food and natural resources of the Jarawas. The settlers are involved in illegal activities such as poaching Andaman wild pig, which is an important food resource for the Jarawas, cutting wood from the reserve and fishing. The Jarawas will not survive if they are denied the land and resources on which they depend for their traditional hunter-gatherer lifestyle. Threats to the reserve also threaten their culture.

Key contributors

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6 The Jarawas and their lands

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The authors, along with some others, carried out fieldwork among the Jarawas as members of a study team deputed by the Anthropological Survey of India in response to a Public Interest Litigation (PIL) that was filed before the High Court of Kolkata seeking intervention of the Court and the Government in matters of the Jarawa tribe of the Andaman Islands. A major part of the information presented here was collected in course of the fieldwork done in three phases in 2001–2002.

Introduction

The Jarawa Tribal Reserve was created in 1957 to ensure that members of the tribe get exclusive access to land, water and all the resources of the reserved territory. It may be noted that settlements were coming up almost all around the Jarawa territories by this time. Although the settler population was exploiting the resources of the reserve occasionally in the initial years, the exploitation grew manifold in subsequent years as the settler population increased. The protective measures taken for the reserve could not completely stop poaching and extraction of resources from Jarawa territory; however it has been effective to a certain extent.

The present article attempts to understand how the Jarawas use the natural resources of the reserved territory to meet their requirements, especially that of food. It has been noted that hunter-gatherer communities in different parts of the world do not confine their relation with nature and natural resources to their regular material needs only. They also develop some kind of extra-material relation with their physical environment. It is expected, therefore, that the Jarawas would not present an altogether different account. However, the present article will largely remain restricted to a discussion of the subsistence activities of the Jarawas.

The reserved territory roughly corresponds to the area under the occupation of the Jarawas. It should be noted that the Jarawas colonized their present territory a little more than a century ago under certain compulsions. Before that they occupied areas lying in the southern part of the South Andaman Island.

According to late 19th century British chroniclers, the people inhabiting areas on the east coast of the South Andaman Island in the late eighteenth were the Jarawas. This area is close to where the present day town of Port Blair stands. When interviewed, The Great Andamanese people living in South Andaman Island supported this opinion about territories occupied by the Jarawa. When the second British settlement was established at the same spot in South Andaman in 1858, the Jarawas were not found in the vicinity of the settlement. They moved further west, probably as a result of their continuous feud and competition over resources with the Aka-Bea-da, a Great Andamanese tribe (Portman 1899:765).

Coast dwellers and jungle dwellers

The tribes of the Andaman Islands divided themselves into two groups, the *ar-yoto* or coast dwellers and the *erem-taga* or jungle dwellers. The Jarawas were considered to be *erem-taga*. While all the tribes of the Andaman Islands were restricted to their respective parts of the islands, the Jarawas and the Aka-Bea-da were often found in a common area of the island. However, while the Aka-Bea-da occupied the coastal parts of the island, the Jarawas were restricted to the interior forest regions (Radcliffe Brown 1922 (1948):15).

In addition to the South Andaman Jarawas, people occupying the southern half of Rutland Island and the

inhabitants of the North Sentinel Island were also described as Jarawas during the late 19th century.

In the late nineteenth and early twentieth century the area inhabited by the Jarawas was opened for colonizing activities like establishing villages and forestry operations. As a result, violent conflicts between the Jarawas on one hand and the police, self-supporting convicts and the friendly Andamanese tribes on the other became common.

Various colonizing activities also pushed the Jarawas from the south of the Great Andaman Islands northward. In 1891 some of them entered Baratang Island, which lies between South and Middle Andaman Island. The authorities organized expeditions to drive them out of the area 'to which they had no right, and which they seemed unable to live at peace with the rightful owners' (Portman 1899:752). However, avoiding Baratang, the Jarawas entered into Middle Andaman Island and also occupied a few smaller islands like Spike Island. The colonization programmes and punitive expeditions continued for many decades. Even then the Jarawas could not completely be flushed from the south. Lidio Cipriani found them in both South and Middle Andaman Islands around the middle of the twentieth century. He reported, 'a few roads radiate from Port Blair, but none penetrate more than twenty kilometres or so from the township. To the north of the town is a well-maintained police cordon that stretches right across the island from east to west to prevent infiltration by the Jarawas; those in the south were all rounded up some time ago' (1966:2,6).

Habitats in the Jarawa territory

The Jarawa habitation is situated in a tropical region; the vegetation of the area can be described as tropical rainforest. The vegetation of the area is mainly a function of climatic and edaphic factors. The forest that the Jarawa inhabit may further be classified in eleven categories. These are giant evergreen forest, Andaman tropical evergreen forest, southern hill top tropical evergreen forest, cane brakes, wet bamboo brakes, Andaman semi-evergreen forest, Andaman moist deciduous forest, Andaman secondary moist deciduous forest, littoral forest, tidal swamp forest and submontane hill valley swamp forest. The aforementioned forest types are not distinctly demarcated and as such one type merges imperceptibly into another.

The ecology of the Andaman forests is akin to those of the Southeast Asian region. They share many commonalities with those forests in terms of several key features of tropical rain forest ecology. The forest of the Andaman Islands has great biomass and is one of the most productive terrestrial ecosystems. It is also extremely efficient at recycling most of its resources. The forests are floristically very diverse and compared to a deciduous forest the resources here are more widely dispersed.

Resources available and used

The Jarawas had a population of 266 individuals as enumerated in September 2002. The area reserved for the people around that time was roughly 650 square kilometres. This corresponded approximately with the actual area they were using for foraging activities. The land-human ratio in case of the Jarawas can be considered adequate in view of their mode of subsistence.

The Jarawas collect required edible and non-edible resources from, both, the forest and aquatic eco-systems. The terrestrial resources may be subdivided into two categories – plant products and animal products. The aquatic resources, all of which are of animal origin, may be classified into three groups on basis of the niches those are collected from: marine, creek and fresh water.

The Jarawas divide the space into five categories: *pilleh* (sea shore area), *tagidh* (marshy area), *chanhanap* (plain forest land), *tinon* (hilly dense forest) and *wa* (streams, inlets). These are also the five broad resource zones providing the people with different resources. The aquatic resources are foraged from *pilleh*, *tagidh* and *wa* areas, while *chanhanap* and *tinon* areas are used for foraging terrestrial resources. The requirement of fresh water is met from *wa*. The resource basket of the Jarawas consists of more than a hundred species of plants and animals, of which about one third are edible and the rest are non-edible resources. The main terrestrial resources include the wild pig, monitor lizard, honey and a wide range of plants foods – roots, fruits and shoots. Aquatic resources mostly consist of different varieties of fish, crabs, shells, molluscs, turtle meat and turtle eggs.

However, the availability and in some cases density of many of these resources are season specific. Extraction of resources by the Jarawas is, therefore, subject to seasonality. There are three broad resource seasons in the area.

Mid-March to mid-May – The islands receive lowest rainfall during this part of the year, when the average temperature remains around 30°C. It is the season of collection of wild jackfruit and honey.

Mid-May to November – The islands receive two monsoons, south-west and north-east, and receive most of the rainfall during this part of the year. During the rainy period the Jarawas largely depend on pig hunting and collection of seeds of a few plants.

December to mid-March – During this part of the year the monsoons come to end, the islands experience sporadic rainfall and the temperature ranges from 20°C to 25°C. For the Jarawas this is the season for honey and turtle egg collection.

Since plucking of certain fruits become difficult due to the height of the trees, Jarawas often gather fruits that are shed. Except *aab* (jackfruit) and *oomin* (seed of *Cycus* sp.), fruits do not constitute a principal part of their diet.

Among aquatic resources bivalve shells are consumed more frequently than other items. While camping along the western coast the Jarawas use more marine resources. In addition to fish and turtle, the women collect

resources like crab (*Sesarma* sp.), prawn (*Metapenaeus* sp.), *Turbo* sp. and *Trochus niloticus*. It was found that in camps where adult male Jarawas were either very few or absent altogether, certain marine resources, particularly mollusc, remained the major source of animal protein.

Fresh water resources

The Andaman Islands have a wet climate with an average rainfall of 2,900 mm per annum. As a result the Jarawa territory has luxuriant rainforest growth. The dense and intricate pattern of the plant roots has made the soil porous and the water retention capacity of the soil is very high. This property of the soil is an induced character and not an original quality. Since the Andaman Islands experience rainfall over eight months a year and the Jarawa habitat has dense forest cover, there are a number of fresh water streams in the forest. A few of them are perennial while others are seasonal. In contrary to the popular notion that the Jarawas suffer from scarcity of water during the dry season, particularly after December, the Jarawa forests have sufficient sources of water. This statement is supported by the fact that water is one of the facilitating and necessary factors for setting up camps by the Jarawas. Members of the Anthropological Survey of India have recorded the location of more than fifty camping sites (see Annexure V) all of which were located near sources of drinking water. Significantly, most of these sources of water were perennial. This helps to infer that there is no scarcity of water in the Jarawa territory. It should also be noted that the existence of the water resources in this area is a function of the high density of forest cover. The perennial nature of these water sources would therefore continue as long as the forest is undisturbed.

Subsistence activities of the Jarawas

We have discussed the resources that the Jarawas forage. This they do through collection of different parts of plants, collection of honey, fishing and hunting. All these activities are influenced by seasonal variation in their availability.

Collecting plant resources – Gathering wild edible plants is an important subsistence activity for the women. The major edible plant resources are wild tubers, seeds of various plants and various seasonal fruits. The Jarawas have reported consumption of five types of tubers, but only two varieties could be identified, *Dioscoria bulbifera* (Nado-hada) and *Dioscoria Pentaphylla* (Pug/Puk). Both the varieties are rich in their starch content. The tubers are gathered by digging with iron rods. The proportion of wild tuber in the diet of the Jarawas was found to be quite low (about 6%) and that was when they stay in interior parts of the forest, away from the coastal area. Wild tubers, however, account for a major part of the total starchy food intake of the Jarawas. The tubers are

eaten after boiling or baking. There is considerable difference in density of such food plants between various types of forest, such as deciduous or evergreen. Leaves are not eaten but are often used as medicine.

The Jarawas eat many kinds of seeds; the most common one is the *oomin* (*Cycas rumphii*). Some are eaten raw and some are processed before eating. Most of this gathering and transportation to the camp is done by women, although men also help, particularly when the seeds are abundantly available. Availability of seeds again has a strong seasonal variation.

All kinds of fruits are eaten fresh, and a large portion is consumed at the gathering spot itself. However, some of the fruits like *emel*, *tangal* (*Pometia pinnata*), *gini* (*Baucaria sapida*), and *oomin* (*Cycas rumphii*) are gathered in large quantities and carried to the camp. Men, especially the young ones, climb the tall trees to collect jackfruits, which are abundantly available during the peak of the dry season. During this part of the year jackfruit comprises a considerably high portion of their food; more at camps in interior parts of the forest and less in the coastal areas.

Collecting honey – The Jarawas collect honey produced by two types of honeybees, the most common type being *Apis dorsata*. The Jarawa males and females climb trees, even the tall ones, cut the beehives and bring them down in containers made of wood. They use leaves of *Canarium euphyllum* as a bee repellent. The person who first locates a beehive enjoys the privilege of collecting it. If the person cannot collect the honey immediately, a few shrubs around the tree are broken to notify others that the beehive has already been located. Both men and women collect honey; there is no gender difference in this pursuit. Honey is partly eaten on the spot by all persons present and the remainder is brought back to the camp. Considerable difference in the availability of honey between the two successive seasons, post monsoon (December) and dry (May), was noted. The estimated collection of honey per beehive was 8.812 kg (including wax) in December (n-8, mean-8.812, SD – 3.85 kg) and it was 3.267 kg in May (n-4, mean-3.267, SD – 3.307 kg).

Collecting larvae – The larvae collected by the Jarawas are mostly of woodborers. They are collected when the larvae fall from the canopy to the ground just before metamorphosis occurs. Sometimes the Jarawa also cut the tree trunks with an axe to extract the borer larvae inside. Availability of this item also varies seasonally.

Fishing – Fishing is a very important subsistence activity for the Jarawas. However, unlike some other tribes of the Andaman and Nicobar Islands, namely the Great Andamanese, Sentinelese, Onge and Shompen, the Jarawas have no knowledge of making canoes and steering them into deeper waters. The fishing activities of the Jarawas are confined to shallow coastal areas, creeks and fresh water bodies. In addition to catching (or shooting) fish, they also collect molluscs and other aquatic species.

Both men and women take part in fishing. While men use the bow and arrow to shoot the fish, women use hand nets. Collection of molluscs and other shells is done with bare hands. While camping in coastal areas the Jarawas consume more molluscs and other aquatic species than while camping in interior parts of the forest.

Hunting – This is primarily a male activity. Jarawa men carry out hunting individually as well as in groups. There are only three game animals available to the Jarawa hunters; the pig, monitor lizard and turtle. The feral pig is the most preferred of all. Interestingly, the Jarawa do not hunt the deer, which are found in plenty in the Jarawa reserve territory. The apparent reason is that this species was introduced in the forests of the Andaman Islands as recently as the twentieth century, and the Jarawas never accepted this as a game animal. It is important for hunters of wild pigs to ascertain the probable location(s) of the animals in the forest. Once the hunters reach that part of the forest, they try to trace footprints of the animals. The prey is then chased and hunted once it is sighted. In case of the turtle and the monitor lizard sighting of the animals is very important.

Processing and storing of food items

Earlier the Jarawas cooked much of their food in pit hearths called *aalaav*. Such hearths are still used by them to cook jackfruit and sometimes meat. The pit hearths are made in the open in the dry season and most often inside a hut in the monsoons. A fire is created at the bottom and covered with pebbles. The food to be cooked is placed on those pebbles and then covered with another set of pebbles. If the item to be cooked is meat, it is packed in green leaves. The pit is then covered with loose earth. It normally takes about three to four hours to cook food in this manner in an *aalaav*.

When jackfruits are available in abundance, the fruits are cooked in the *aalaav* in large numbers. Some of the fruits are consumed immediately after cooking. The rest are broken open, seeds are retrieved and packed in cane baskets. The baskets are then buried under mud in creeks and left there for about two weeks. Through the process the seeds are partly decomposed. These seeds are then collected and their outer skin is removed before storing them for more than a month. These seeds are baked and eaten during the rainy season.

Pig meat is often boiled in metal pans these days. Only occasionally they cook the meat in *aalaav*. A portion of the meat is smoked and kept for weeks or even months. Some pig fat also is stored for a longer period of time.

Skin of *oomiin* (*Cycas rumphii*) seeds is removed and the kernel is sliced. These slices are put in baskets, dipped in saline water for about two weeks, dried in the sun and stored for months. These slices are boiled in water to cook them and sometimes the boiled seeds are also mixed with stored pig fat.

Honey is also stored in wooden buckets covered with green leaves.

Consumption and seasonal variation

While the meat of animals is distributed among all the household units or single persons residing in one camp, other foraged items are generally shared within the household unit only.

The consumption rate of edible items from plant and animal sources collected from both forest and sea was estimated at two different points of time in a year, early January and mid April 2002. The first phase was soon after the monsoon, the other one was during the dry part of the year. In each phase a week-long quantitative food survey was conducted in the coastal area and in the interior of the forests. Items of food were measured in terms of net weight of their edible portions. In case of jackfruit, for instance, the edible portion weighed about 33% of the gross weight. In case of *thua* (*Nypa fruticans*), a compound fruit collected from littoral forest, the weight of the edible part was about 12% of the gross weight.

It was observed during early January that the Jarawas in the coastal area were largely dependent on marine resources; 41% of their food came from the sea in the form of turtle eggs (*Lepidochelys olivacea*) (6.89%), sea-fish (28.72%), bivalves (4.86%), crabs (*Sesarma* sp.) (0.93%), prawn (*Metapenaeus* sp.) collected from creeks (3.09%). Meanwhile 59% of their food came from the forest in the form of pig (36.79%), honey (*Apis dorsata*) (17.73%) and different kinds of tubers (*Dioscorea vexans*, *Diospyros andamanica*) (4.86%).

During the same season people in locations away from the coast were dependent on resources like honey (66.6%), fish from inland water bodies (27.59%), pig (*Sus scrofa andamanensis*) (3%), monitor lizard (*Varanus salvator andamanensis*) (1.86%), and tubers (1%). It may be noted that food obtained from animal sources during this period was estimated to be 95% of the total consumption, while plants contributed the remaining 5%.

During the month of April the survey was conducted in an area located close to the coast. During this period the interior parts of the forests were also accessible to these Jarawas. The proportion of animal products in their food was estimated to be 63.74%, comprising of food items like pig (48.61%), honey (13.28%), fish (0.63%), crabs and other shells (1.22%). The rest (36.26%) of the food came from plant sources in forms of jackfruit (20.19%), different seasonal fruits (11.29%), various kinds of tubers (3.18%), and pandanus (*Pandanus andamanensis*) (1.6%).

A considerable seasonal variation in food resources obtained from both animal and plant sources could be noticed. During the month of January dependence on animal resources was relatively much higher than on plant resources. While plant sources contributed about 5% of their food in the month of January, it grew more than seven fold to 36% in April.

Although the seasonal variation in food consumption by the Jarawas is related to the availability of resources, it should be noted that they are also presented with other choices from the same area. The way this choice is

exercised demonstrates judicious decision making on the part of the community. It is evident from the consumption pattern that pigs, which are a preferred item of food, met half of the food requirement in the month of April. Jackfruit too was consumed at a considerably high rate, because the abundance of this item lasts for less than a month.

Though the Jarawas have been receiving gifts of banana and coconut since 1974, it is obvious these supplies contributed only a negligible amount of their food needs. After 1997 the Jarawas started receiving many more items of food more regularly from the villagers and from people passing through their part of the forest. Even then, until 2003 they were not much dependent on such food. This was evident from the fact that the same group of people, while camping at places away from the road or from villages, simply did not bother about the non-traditional items of food.

Some other uses of the resources

The Jarawas also make different types of implements required for different activities. For this they use natural resources available within their territory such as wood, bark, cane, creepers, raisin, and leaves. In addition they use metal for making arrows and knives and certain metal tools like the axe and hammer. Sharpening files are also used. All Jarawa households use metal pots to cook food. Villages located close to the Jarawa habitat are the principal source of metal implements and pots for the Jarawas. During the recent days of friendship the Jarawas have continued to receive gifts from the non-Jarawas in the form of edibles and metal.

The important objects made by the Jarawas include the bow, arrow, chest-guard, honey container, torch, raft, and different types of huts. The wood used in making the bow is *Sagerca cliptica*. The length of a bow varies from 1 metre to 1.5 metres and the grip at the centre is about 5 cm broad, tapering to narrower ends at both extremities. The bowstring is usually made of entwined tree bark, collected from the *Sterculia villasa* tree. Some of the arrows made by the Jarawas are without any metallic tip. The pointed shaft is used for piercing and such arrows are generally used for fishing. Other arrows have a longer shaft and are fitted with a flattened iron head.

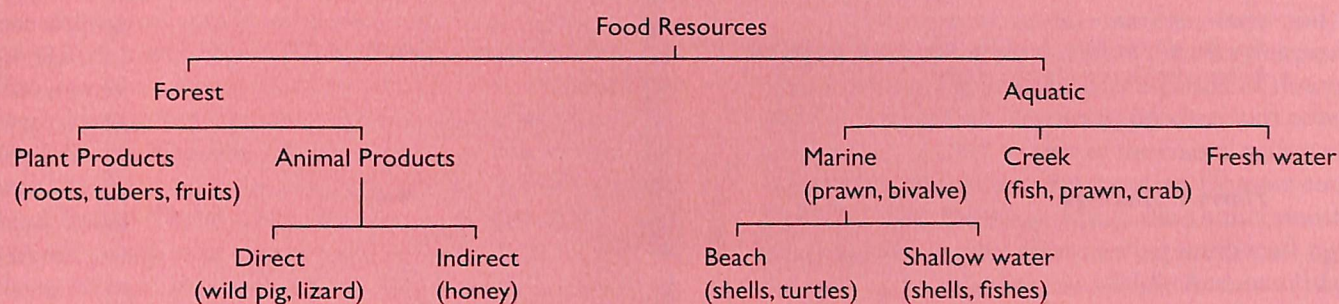
Chest guards are made from bark of *Sterculia villasa* tree. The bark is slightly dried and bent according to the user's torso measurement. Chest guards are often decorated with line designs made with small sticks dipped in a dye extracted from the branches of a tree.

The Jarawas do not make boats, they use rafts to carry their children and belongings across the crocodile infested creeks and streams. Such a raft is a collection of a number of logs and bamboo tied with bark and creepers.

To make a torch, wood-raisin is packed in green leaves and tied with cane strips. Each torch is about 46 cm long and 7.5 cm to 10 cm wide in the middle. These torches are used for movement in the dark.

Portions of certain plants and certain types of clay are used by the Jarawas to treat different types of ailments. They

Box VII: Food resources available in the Jarawa Tribal Reserve



were observed to treat abdominal pain, headache, pain in the neck and limbs, fever and diarrhoea by applying portions of plants and red and white clay externally. Reportedly, they also treat snake and centipede bites with their medicines.

Mobility

The Jarawas move from one part of their habitat to another in groups and spread their foraging activities over space. This is directly related to the availability, type and density of resources.

The Jarawas generally move for two reasons. Often they shift their camps from one place to another to ensure procurement of various resources, including food. These are subject to seasonality and availability of resource and follow a certain clear pattern. Sometimes the movement, in large or small groups, also happens to visit other members of their tribe. On the occasion of such social visits, the visitors and the visited often go for joint foraging expeditions.

Between May and September the Jarawas avoid camping on the western coast, as this is the season of the southwest monsoons and the sea becomes turbulent and rough. There is more movement inland and along the sheltered bays and creeks. From November to April the Jarawas move both to inland as well as to the seaward areas. This they do because during this season they are able to use both coastal (turtle and turtle eggs) and inland (honey) resources. The eastern coast does remain rough on account of onset of northeast monsoon. Since the Jarawas do not use that coast much, this does not have much of an implication on their movement.

From a base camp two types of movements are made. Immediately after a camp is established at a particular place people go out foraging for resources and generally come back the same day. After a few days, when the resources in the vicinity of the camp start to thin out, people are required to cover longer distances and consequently movements from and back to the base camp may stretch over several days.

In lieu of an inference

On the basis of the information presented here, it is difficult to infer conclusively whether the natural resources available to the Jarawas are enough to meet all their needs, material and non-material. However, our observations strongly suggest that most of the Jarawa material needs were being satisfied by collecting and utilising resources found within their habitat, which roughly corresponds with the Tribal Reserve. It could also be noted that the Jarawas were in a position to select from among the resources available to them and they were making the selection judiciously. However, the difference between availability of the resources and the requirement of the Jarawas is not very wide and continued unauthorised extraction by non-Jarawa population in bound to affect the Jarawas negatively.

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7 Impact assessment around the Jarawa Reserve, Middle and South Andaman Islands

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Introduction

In 1947 the Andaman and Nicobar group of islands were taken over by the Government of India and in 1956, areas in the islands were designated as reserved areas for different aboriginal people of the islands. The Nicobar group of islands was reserved for the Nicobarese, including the Shompens in Great Nicobar Island. The Onge people were marginalised on two occasions to two areas on Little Andaman Island, the Dugong Creek and South Bay. This was chiefly to accommodate refugee families from mainland India. The last few remaining people of the once largest group, the Great Andamanese, were settled on Strait Island. The Sentinelese, who were always living on North Sentinel Island, still remain there. The Jarawas, referred to as the 'other people' by the Great Andamanese, were marginalised to the west-coast of Middle and South Andaman Islands (Maps VIIa–VIIc).

The territorial range of the Jarawa people extended from Rutland Island in the south, around Port Blair area and further north, and then inland into the western side of South Andaman Island. Later during 1890–1910 these people colonized the western coast of Middle Andaman Island, an area that was previously occupied by some of the Great Andamanese septs (Portman 1899). However, the Jarawa people were finally marginalized on two occasions through the amendments ANPATR/3(r)/1,1956/57 and No. 107.7/78–TW.1979. Marginalization mainly occurred to accommodate people already settled in the Andaman Islands and new settlers who came from mainland India. The second notification was for the construction of the Andaman Trunk Road through South and Middle Andaman Islands. The reserved area starts from the south at Constance Bay along the Mount Cholunga Range towards and along the Mount Cadell Range up to Middle Strait, all along an imaginary line. This reserved area along the west coast of South Andaman Island is only 560.69 sq. km (Forest Statistics: 1998–1999).²⁴ The reserved area extends further north from Bluff and Spike Islands, west of Yeratila Jig Creek in south of Middle Andaman Island along the western coast and includes Flat Island. The reserve then extends further north along Louis Inlet and the Mount William Range on the eastern side and up to Hanspuri in Middle Andaman Island, thus covering a total area of 338.69 sq. km in Middle Andaman Island and 11.7 sq. km in Spike Island (Forest Statistics: 1998–1999) (Map VIIb). The notification also includes five kms of coastal waters from the high tide line mark along the Reserve of South and Middle Andaman Islands as part of the reserve.

Methodology

Survey and assessments were conducted along the western coast by sea and the eastern and southern boundaries by road. A rapid socio-economic study and interviews with local people settled along the eastern and southern sides

of the boundary were conducted over a two-month period. The coastal survey was conducted with a dugout boat and an inflatable rubber boat as part of the Crocodile and Wetlands Survey and the methodology employed has been reported earlier.

All mangrove creeks, marshes, bays and wetland habitats along the western coast of the reserve were surveyed during the day and at night over a period of three months. Interviews with local fishermen, poachers and other settlers were also conducted. Extent of the coastal survey was commenced from Constance Bay between Florence and Palmer Points in South Andaman Island, the southernmost boundary of the reserve, and then moving northward right along the coast up to Louis Inlet in Middle Andaman Island.

Results

The western coast

The Constance Bay area

This area was surveyed along three main mangrove creek systems, two draining south into this bay from Mount Chattenton and the others draining out from the north-eastern side of the settled areas known as Tirur and Herbertabad (Map VIIa). The Tirur Creek, as it is locally referred to, is formed by several smaller mangrove creeks with two fresh water streams draining into it from the settled areas that are outside the reserve. These creeks were surveyed during the day, including the fresh water creeks next to settlements. All these creeks form a highly disturbed creek system with agriculture extending right up to the fresh water streams, mangrove creeks and plantations on hill slopes, causing large scale silting of creeks, marshes and the bay. Evidences of large scale felling of forest and mangrove trees were observed, which is another cause for siltation. However, there are reports of the Jarawa people crossing this creek and there is a Bush Police outpost right at the mouth of this creek.

The two creeks draining from Mount Chattenton through the reserve were surveyed during the day and at night on two occasions. A small creek flows south into the bay and is in the west of a larger creek called Bajalunta Jig (Map VIIa). This creek, almost 12 km long with pristine mangrove habitat and situated right within the Jarawa Reserve, is under immense pressure mainly from forest and mangrove tree felling, poaching of the Andaman wild pig (*Sus scrofa andamanensis*) and spotted deer (*Axis axis*) and intensive fishing. Fishing within the bay along the reserved area side was observed and fishermen also reported the poaching of crocodiles by settlers in these creeks.

On two occasions fishermen were observed in these creeks and in the bay, and poachers were also observed going into the creeks and coming out into the bay after hunting with the protection of the Bush Police. Poachers from South and Middle Andaman Islands have been using these creeks since the early 70s. Interviews conducted

²⁴ Recently increased to a little over 1000 sq. km (see Annexure I)

with these people indicated that there had always been pressure on resources and the presence in the area of outsiders from other parts of the Andamans.

North into this creek is a crossing made by the Jarawa people, a bridge constructed with wood poles, tree bark fibre and a mangrove tree that leans across the creek towards the western bank. Although it may seem very crude, there is a certain technology in the design for load bearing and in keeping it user-friendly. However, the concept of a Jarawa bridge is uncertain, this being the first and only bridge encountered in a creek within the reserved area surveyed. The Jarawa people are known to use rafts of different shapes and sizes, constructed from various natural materials like wood or bamboo to raft down creeks or cross over to the opposite bank.

However, this was the only creek where no rafts were observed, strongly suggesting how little is known about these original inhabitants of the islands. This bridge was certainly not meant to avoid crocodiles (*Crocodylus porosus*), since all other creeks surveyed along the western and eastern coasts have populations of crocodiles and only rafts were encountered.

People settled close to the reserve use the area right up to Mount Chattenton and the east of it for hunting, collecting timber and other forest produce. It is known that the Jarawa people use the northern edge of an extensive marsh area within the reserve as campsites and probably use the marsh for hunting fish and collection of shellfish. Some of the settlers use the same marsh on the eastern and southern sides, mainly for catching freshwater fish and trapping teals, including the endangered endemic Andaman teal (*Anas gibberifrons*).

The Tribal Welfare Department has used this marsh to airdrop food for the Jarawa people. Marshes of this type in the Andaman Islands exist only in the Jarawa Reserve, Baratang and Little Andaman Islands. These fragile ecosystems are very important for several species of wetland birds, the endemic Andaman teal and freshwater fish of which we know very little, and are also equally important as habitat for crocodile nesting and for small crocodiles.

There are Jarawa camps in the western side of Constance Bay with the Bush Police camp situated at the mouth of Tirur Creek and plantations on the south-eastern side of the bay (Map VIIa). This critical area that had the largest number of Bush Police camps was always a region for intensive conflict between the Jarawa on one side and the settlers, poachers and Bush Police on the other. These conflicts can be assessed and evaluated from the number of newspaper and police reports. It is also important to consider that historically the Jarawa used the area up to Port Mount off north Wandoor.

Coastal belt along Palmar Point, Cape Barwell & south of Montgomery Island

This area is fringed by rocks, coral and inter-tidal reefs, several open sandy beaches backed by forests with four small mangrove creeks and three fresh water streams draining into the sea (Maps VIIa & VIIb). Right along

this stretch there were four campsites of the Jarawa, who very frequently used them upto 1998. They have, however, not been so used since 1999. Several huts could be seen from the sea. Evidence of this had been confirmed by a number of campfires seen during the night while traveling by boat since 1993. This was the method used for estimating groups and families of the Jarawas. However, this random study was given up due to lack of knowledge of real number of people at a campfire, as they could not be counted from open sea during the night and from a distance.

Since 1997 evidence of pressure on this stretch of the reserve and on the Jarawas had been observed. In the year 1997 the local fishermen brought to north Wandoor three Myanmarese poachers found in open sea, wounded by Jarawa arrows. Interviews with these poachers indicated that 22 of them had landed on one of the beaches and were attacked. The Jarawas killed several of them and in turn the Myanmarese poachers also killed many Jarawas. Seven more Myanmarese poachers, who were also wounded, escaped through the forest to Tirur area and were later admitted to the Port Blair hospital by the Bush Police.

Recent assessments indicate that the pressure from the local fishermen, local poachers and also the Myanmarese poachers has increased tremendously. Fishermen were observed fishing very close to the shore right in front of Jarawa camps. They had also started anchoring boats closer to the shores during night. Both local and Myanmarese poachers were observed diving very close to the camps for shells and sea cucumber. The local poachers had started landing on these shores for water besides looking in the Jarawa camps for honey and other products collected by the Jarawa people. This is a clear indication that the Myanmarese poachers must be doing the same as they too require large quantities of water since each of their boats carry 15 to 25 persons.

South of Cape Barewell is a mangrove creek that drains into an unnamed bay. This bay and the creek are used by the local fishermen for fishing. Local poachers use the creek to go into the reserve to hunt pigs, spotted deer and meet the Myanmarese poachers for barter and trade. Myanmarese poachers use this creek to hide and to process sea cucumber (*Holothuria sp.*). Evidences of the existence of their camps can be ascertained in terms of finds like sleeping platforms and platforms for drying sea cucumber. During late 1997 a Myanmarese boat was observed south of this bay close to the mangroves. The Jarawa people had completely dismantled this boat for metal and planks and it could be inferred as some sort of an encounter, leading to some of the boat crew and some Jarawa people being killed. South of this creek is a Jarawa camp which was active up to April 1997. The same kind of pressure from poachers was observed along the area north of Cape Barewell and south of Montgomery Island, where there were several major campsites of the Jarawas, including a communal hut.

Port Campbell

An area of historical importance, the Great Andamanese occupied the areas south of Port Campbell, while the northern areas were occupied by a Aka-Bea-Da sept (Portman 1899). Huge kitchen middens could still be seen in this area. Port Campbell is comprised of Montgomery, Petrie, Defence and Clyde Islands including an unnamed mangrove island south-east of Defence. There are four large and three small mangrove creeks, besides several small freshwater streams, which drain into the Dalrymple Beach area. There are also two large and three smaller mangrove creeks that drain into the Blair Beach area from the Mount Cadell Range.

Port Campbell is one of the most important areas for the Jarawa people and they are known to use Petrie, Defence, Montgomery and Clyde Islands (Map VIIa). Their camps could be seen on the north-western side of Defence Island, including two or three small huts on Main Island south of Ike Bay opposite Defence Island. A large communal hut was observed on a small hillock opposite south-east part of Defence Island. Two more small hunting camps were observed along the eastern side of Blair Bay on Main Island and another communal hut situated on a small hillock south of the western side of the mouth of the Partamjig Creek.

There were, however, evidences of several other such units inside the forest and clearings to suggest that several more huts might have been made. A raft was seen below the Partamjig Creek communal hut and subsequently the same raft was observed approximately 12 km north, just below the hut opposite Defence Island. In late January 2000 a group of Jarawa people, including women and several children, were observed south of Ike Bay. Two of the men were carrying pigs on their back indicating that this group was returning to their camp after a hunt. Another group was observed moving south from the Partamjig area towards the west of Clyde Island.

Observations in this area suggest that it is highly disturbed and there is huge pressure on the Jarawa people and their reserve by poachers and their movements. Fishermen use this area as a safe anchorage bay and for fishing. They also fish in areas around Ike Bay, areas off Petrie Island and south off Montgomery Island (Map VIIb). Intensive fishing and crab hunting are also carried out within the bay and in creeks. Local poachers use these creeks to go into the forest to hunt pigs and deer. Several of their boats were observed inside the creeks and in the bay. Three large camps constructed by Myanmar poachers were found in the creeks draining from the south-western side into Dalrymple Beach. During nights the sound of their boat engines was audible and they might have avoided the area on seeing other local boats. Interviews with the local fishermen indicated that Myanmar poachers used the area frequently. There were local reports and evidence that Thai poachers had used the area to poach crocodiles during 1992–93.

Local fishermen were observed using the source of water located very close to the Jarawa camp south of Ike

Bay, indicating that local and Myanmar poachers had also been doing the same and that people were not scared of the Jarawas any more. Camps constructed by local fishermen or poachers were observed on the south eastern side of Defence Island. Such findings require serious consideration, as assessments conducted in Little Andaman Island had shown that the deserted seasonal campsites of the Onge were presently being used by local fishermen and poachers. Local poachers did land on Petrie and Defence Islands to collect edible nests of swiftlets (*Collocalia fuciphaga*) and hunt deer. Several noose traps were found and destroyed by us on Defence Island. The free movement of the Jarawas was totally restricted within the bay and on the coast. To avoid conflict with outsiders they were compelled to go to other areas for resources.

Port Campbell, over the years, has been another area of constant conflicts, mostly because there is a large concentration of Jarawa camps and local fishermen, Myanmar and local poachers extensively use the area and the islands lying around. There were past incidents of fishermen and poachers being killed on Petrie and Defence Islands and there were several more such incidences that had occurred and went unreported. However, there had never ever been any evidence or report of what might have happened to the Jarawas involved in all those encounters.

Coastal belt north between Ike Bay & Cape Bluff

Local fishermen use this stretch of area for fishing close to land, besides using Blip and Breakfast Bays as anchorage sites. Over twenty Myanmar poachers were observed one late afternoon diving into the sea for sea cucumber very close to the shore, north of Breakfast Bay. Some fishermen, and local and Myanmar poachers were known to land on this stretch of shore for fresh water and hunting. Some Jarawa people have their communal huts close to these bays.

Cape Bluff, Bluff and Spike Islands, Port Anson & Foul Bay area

The inlet just east of Cape Bluff is a narrow 4 km long closed bay, going south-east. This inlet is fringed by mangroves, small beaches, rocky outcrops and Andaman beach forest on the western side, while mangroves fringe the eastern and southern areas (Maps VIIb & c). The Jarawa people used the western and southern sides as recently as 1997. Just off the beach on the western side there used to be large communal hut. There was a communal hut on the southern side of a hillock in the forest as well. Currently, local fishermen use this inlet for anchorage and as a camping site. Local poachers use this inlet to go into the forest to hunt pigs, deer and to steal honey and ambergris from Jarawa huts. Over the years there had been several conflicts between the Jarawa people and the local and Myanmar poachers. The Jarawa people had killed Myanmar poachers and boats of the latter had been found in this inlet several years ago.

Spike and Bluff Islands have been an area of conflict since 1948 (Sarkar 1990) (Map VIIb). Local poachers and

fishermen had very frequently been killed on these two islands. Local poachers still hunt, take timber and mine sand from Spike Island. Feral dogs that had been left behind by poachers could still be seen on Spike. These two islands have been very important for the Jarawa people. Bluff was used for collecting sea turtle eggs and Spike was a place where a large group of Jarawa people always resided on the western and northern parts. There are also local reports of poachers raiding Jarawa huts for honey and ambergris.

The mangrove creek south of Baby Island drains from a very extensive wetland system composed of marshes, several small mangrove creeks, and small and large fresh water creeks. The area was surveyed in 1998 and in February 2000. Intensive fishing and crab hunting by local settlers were observed within this area of the reserve. Local settlers use this area for extraction of timber, hunting crocodiles, wild boars and deer, and collecting of bamboo and cane. There was evidence of the Jarawa people using this area extensively and indications were that it could be a very important hunting ground for them.

Yeratilajig, east of Foul Bay and Lekera Lunta, is a large mangrove creek, almost 16 km long. It is one of the most pristine and diverse wetland eco-systems in the Andaman Islands with several fresh water streams draining into it (Maps VIIb & VIIc). This is the wetland and creek system in the Andaman Islands with the most extensive nypa palm (*Nypa fruiticans*) habitat. A smaller creek from the north-eastern side draining into Yeratilajig was also surveyed. Several rafts made by the Jarawa people were found in this creek system. Fish traps made of nypa palm leaves set across small channels flowing from the marsh into the creek, and pathways along creeks and into the forest were also seen. This creek area is a very important hunting and fishing ground for the Jarawa people who live in the Yadita, Foul Bay/Lekera Lunta and Spike Island.

However, this large creek system is used by local fishermen for fishing and crab hunting. Settlers poach crocodiles, pigs, deer, timber and bamboo here. On two occasions fishermen and poachers were encountered in the creek system. Apart from these encounters, loads of bamboo tied together, felled mangrove and other species of trees left in creeks were found. This had also been an area of conflicts since 1952 (Sarkar 1990), besides being one of the important Jarawa concentration areas.

Coastal stretch between Foul Bay & Rocky Point including Flat Island

This must be a very important area for the Jarawa people considering the number of temporary and large communal huts that could be seen all along this stretch. The main sites are Tanmuguta, Barla-Ka-bi and Yadita, including a small unnamed bay south of Flat Island, where there were several communal and small temporary huts. There were also several small temporary huts in an unnamed bay north of Flat Island (Map VIIc). No direct assessment of this area was possible, but reports from the local fishermen and boatmen were collected and it was learnt

that the Myanmarese poachers had been observed diving and collecting sea cucumber. On one occasion during the early 90s, the Jarawa people were observed taking apart a Myanmarese dugout canoe, probably for metal. One of the important observations was the presence of small and large communal huts of the Jarawa people along this stretch of coast.

Boats were always seen anchored near Flat Island and people were present on the island. The Jarawas use this island and cross over to it at low tide. Over the years several conflict incidents have taken place on this island between them and the fishermen, and also local and Myanmarese poachers.

Pilot and Robert Bay

Pilot Bay was surveyed and no disturbance was observed. People, however, reported that fishermen used the bay as a safe anchorage for their boats. Local and Myanmarese poachers too are known to use the area to enter into forests.

Ecologically, Robert Bay should be considered as a very important sea turtle feeding ground with its extensive sea grass beds (Map VIIc). During the survey green sea turtles (*Chelonia mydas*) and hawksbill turtles (*Eretmochelys imbricata*) were observed and it was reported that local settlers hunted turtles in the bay. The eastern side of this bay has a long and wide beach, which is a nesting site for two species of sea turtles.

Robert Bay has two creeks flowing from the south-eastern side and two very narrow creeks from the south-western side, all draining into the bay. These narrow creeks were surveyed on two occasions. On the first occasion local poachers were encountered and on the second, two Myanmarese boats with around 25 people on board were encountered in the eastern most creek. These boats were loaded with sea cucumber, food supplies, basic diving gear and fuel. The same boats were later apprehended close to Mayabundar by the police.

The two large creeks draining into Robert Bay from the south-eastern side were surveyed on two occasions (Map VIIc). These creeks drain out from within the Jarawa Reserve into the bay and were frequently used by local and Myanmarese poachers. In one of the creeks a boat from Chainpur was encountered. There were five people, six dogs and three freshly killed wild boars on the boat. At the same time, another group of poachers was in the forest and their dogs could be heard barking. Settlers from Chainpur and Sippi Tikry used these creeks for fishing. Interviews with these settlers and other poachers disclosed that these creeks were used regularly by local poachers to enter the Jarawa Reserve for poaching wild pigs and deer. A portion of the poached items was supplied to the Bush Police outpost at Louis Inlet and the remaining portions were sold in the settlements. Myanmarese poachers used these creeks as a hideout and to process sea cucumber.

There was evidence of the Jarawa people using these creeks, their rafts and styrofoam pieces were found,

which they used for crossing or floating down the creeks. Poachers reported that there were large Jarawa camps around these creek systems, including large communal huts. This area requires a more detailed study, indications are that it is a very important area for the Jarawa people.

Two huge long kitchen middens were seen in one of the creeks indicating that this area was once occupied by one of the septs of the Kede tribe (Portman 1899).

Louis Inlet, Melegar Boilyu, Lungrawath Boilyu & Wologa Boilyu Creek systems

This is a very extensive wetland area with the Melegar Boilyu and Wologa Boilyu creek system. It is fed by smaller creeks and fresh water streams from the Mount William Range, which drain through the area known as Lungrawath Boilyu, that has several small mangrove islands and a fresh water stream. West of Point Thomas, just near the entrance and on the northern side of Louis Inlet, was the Bush Police camp established in 1957 on top of a hillock (Map VIIc). This camp was closed in 1999 and manned again in February 2000 by the police after a group of Jarawa people raided the encroached settlement of Sippi Tikry, that lay within the Jarawa Reserve, and Hanspuri, north of the Reserve. Louis Inlet and the area around it are the northernmost extremity of the reserve. All the large creeks and fresh water systems draining into Melegar, Wologa and Lungrawath Boilyu were surveyed. The Wologa drains down mostly from settled areas like Chainpur and settlements south of Hanspuri (Map VIIc).

The northern areas of the Louis Inlet have encroached settlements within the Jarawa Reserve. This includes Sippi Tikry, named after a kitchen midden on the south-western bank of Wologa Boilyu, and Khokdi Dabla (now named Ganesh Nagar) that is located north-west of Sippi Tikry. The others are Balu Dabla on the coast, Naya Katti, Sundri Khadi, Batliak Khadi, Pharsa Nalli and Karanj Khadi, all situated south of Hanspuri.

Settlers from the settlements of Chainpur, Sippi Tikry, Ganesh Nagar and Hanspuri and from other parts of the North and Middle Andaman Islands use this area intensively and extensively for fishing, crab hunting, poaching pigs, deer, crocodiles, timber, cane and bamboo. This was evident from the number of boats found in most of the large and small creek systems. Myanmarese poachers too use this area for illegal timber extraction and as a hideout. Several platforms for fishing and camping, made out of poles and bamboo, were observed in almost all the creeks and mangrove marshes. Interviews with local settlers indicated that the reserved area was well used by the settlers and poachers. Evidences showed that Melegar Boilyu and areas lying south of it were still being used extensively by the Jarawa people. The evidences included sighting of Jarawa rafts and fish traps.

Presence of old kitchen middens in Wologa Boilyu and Melegar Boilyu are indicators that these areas too were once occupied by an extinct sept of the Kede tribe and later colonised by the Jarawa people.

The south-eastern & the eastern boundaries

The south-eastern boundary of the Jarawa Reserve is surrounded by settlements, their plantations and converted forests without a buffer zone. The settlements of Tirur/Temple Myo, Herbertabad, Manpur and Colinpur are in a cluster. Again Tusonabad and Ograbaraij are clustered together, as are Anikhet and Caddlegunj. The northernmost settlement is Ferrargunj. The settlements along the eastern boundary are Beach Dera, Jhinga Nullah, Mile Tilek, Jirkatang and the settlements along Shoal Bay in South Andaman Island (Map VIIa). Areas of Tirur/Temple Myo extend right up to the Jarawa Reserve boundary and in some cases right into the reserve.

Socio-economic studies conducted around Tirur indicated that there was tremendous pressure by way of resource exploitation on the reserve. Several hundred people interviewed confirmed using the resources from within the reserve. The resource exploited consisted of forest produce such as bamboo, cane, medicinal plants, poles and timber. Over thirty men from the area continued to go into the reserve for fishing and poaching Andaman teals, wild boars and deer. People from other settlements also entered into the reserve regularly for the same forest resources. Even poachers from Shoal Bay settlements used the reserve for hunting deer and pig. Crocodile surveys during 1998 revealed evidence of the Jarawa people using areas around Puttatang Creek. Several of their bamboo rafts were seen in two creeks. Several poachers and their boats were also encountered in those creeks within the reserve.

The settlements along the north-eastern and northern boundaries in Middle Andaman Island are mainly Uttara, Kadamtala, Santanu, Kausalya Nagar, Kalsi and Chainpur (Maps VIIb & VIIc). Socio-economic surveys conducted in those areas also indicated that there was tremendous and consistent pressure on the reserved area for timber, bamboo, cane, fish, Andaman teal, wild boar, deer and crocodile. All the 350 hunters interviewed hunted wild boars and deer. 127 of them hunted Andaman teals and 63 poached crocodiles. In 1999 a Forest Ranger from Kadamtala had instructed the Jarawa people to destroy noose traps set within the reserve for pigs and deer. The Jarawa people had been regularly bringing in traps and handing them over at the Ranger Office for some time (Manish Chandi, *pers. comm.*).

One very important observation was that the poachers who entered into the reserve always wore brown shirts and pants, and this was recorded right from Constance Bay in the south up to Louis Inlet in Middle Andaman Island. This was mainly to lead the Jarawa people into thinking that those poachers were the Bush Police. The observation was confirmed during the socio-economic study in Middle Andaman and South Andaman Islands and it was well known that the Jarawa people were always scared of the Bush Police and their guns.

Another group of people exploiting the situation were some foreign nationals, who entered into the Jarawa Reserve to photograph the Jarawa people for magazine articles and to videograph them. Evidences of such acts could be seen in published German, French and Italian magazine articles and in video-tapes that were being passed around. Some of the articles portrayed the Jarawa people as savages and even worse. They lacked any truth or authentic information about the people or the islands.

Box VIII /The Onge & Jarawa Tribal Reserves: some differences

Manish Chandi

The Onge Tribal Reserve on Little Andaman Island comes close in diversity of ecosystems and species in comparison to the Jarawa Tribal Reserve. There however are basic differences between these two regions.

(a) The Onge live in settlements where they receive dole, and from where they hunt and forage in the nearby forests. After their sedentarisation, outsiders have for long used tribal reserve regions other than the Onge settlement. This process has contributed to extensive exploitation of resources for commerce and food by visiting groups of fishermen and hunters, for illegal timber extraction and in one case the residence of hunters to supply wild pork to settlements. The Jarawa continue to forage and have foiled many attempts of incursion into their spaces by poachers in the past. With friendship gained through sustained attempts by the administration through contact missions, however, this has changed. Poachers now frequently visit the reserve from settlements in the Andamans and from outside; this was limited due to Jarawa aggression in the past. Recently many inroads have been made by poachers and if unchecked, this will reach levels of exploitation much higher than in Little Andaman Island, due to proximity of settlements in the Great Andaman group of Islands.

(b) Secondly, Little Andaman Island has not been colonized by spotted deer *Axis axis*. The role of this exotic introduced into the islands during the British era has been discussed by Ali (2004) and Aul (2002). This animal has achieved pest status due to its appetite, colonizing adeptness as well as reproducing capabilities, making it a serious threat to the future of many forests in the islands. Spotted deer has colonized nearly all the islands in the Andamans except far outlying ones. Barking deer *Muntiacus muntjac*, were also introduced in the islands but remain restricted to North Andaman, Baratang and Middle Andaman Islands, including the Jarawa reserve on Middle Andaman Island. Beach forests of small islands in particular are severely deficient in the natural regeneration, and especially large trees due to browsing and foraging of seedlings and young trees by deer. Little Andaman Island does not face this problem of natural regeneration in the remaining regions of pristine forest due to the absence of deer.

Discussion

Colonization in 1772 and 1858 by the British and later the taking over of the islands by the Government of India in 1947 had been a continual process of territorial change for the early inhabitants of the Andaman Islands. Decimation of several tribes had occurred through the colonization process over the last two centuries and conflicts had been reported throughout the history of the Andaman Islands (Portman 1899). Ironically, conflicts have continued to the present day. The age of progress and rapid development seemingly learnt nothing from history and history was allowed to repeat itself. All tribes, who were in the past befriended by outsiders and were drawn into a system of change, are nearing extinction. Only those who were hostile survive today. Portman (1899) has mentioned that the British, in all their attempts to alter the lifestyle of the Great Andamanese, failed miserably.

The two amendments formulated to marginalize the Jarawa people did not take into consideration their social structure, social organisation or their territorial range. Ever since, the Jarawa people have been under constant pressure, with their movements restricted by conflicts right around their territorial range and their resources under exploitation by settlers and poachers. The notification also stipulates 5 km of coastal waters from the high tide line as part of the reserve and anyone in contravention of this notification is liable to be punished with imprisonment or a fine or both. However, this was never enforced and was continually violated.

Preliminary ecological survey and assessment study results showed that the wetlands ecosystems and associated habitats in the reserve were the most pristine and diverse compared to the rest of the Andaman Islands, excluding Little Andaman. Those included the last remaining extensive habitats for the endangered Andaman teal and other wetland birds in the Andaman Islands. Teals were seen in almost all creeks and in open marshes along the west coast of South and Middle Andaman Islands. Some of the creeks support very good populations of crocodiles and also have excellent nesting habitats. Yeratilajig, one of the extensive creeks in the south of Middle Andaman Island, had the most extensive nypa palm (*Nypa fruticans*) habitat in the Andaman archipelago.

There is an urgent need to enforce laws for maintaining territorial boundaries. More than trying to keep the Jarawa people within the reserve, all out effort should be made to keep outsiders and poachers away from the reserve. All encroachments, and even temporary forest camps should be removed from within the reserve. Collection of forest produce by settlers and government departments should also be stopped. Several of the forces, such as the Coast Guard and the Navy, could assist in enforcing the 5 km coastal waters regulation, as specified in the notification. To implement this in the right away, the administration should make an island-wide announcement through radio, TV and posters for all fishermen and settlers, informing of the illegalities of fishing, anchoring

Box IX/Diary notes

Manish Chandi 04/02/2006

Flat Island is used by many settlers to hunt deer, sea turtles and fish and also by Myanmarese poachers who anchor to collect sea cucumbers/or hide during the day, many of whom were killed in hostile encounters in the past. The Jarawa are known to cross over to collect sea turtles and their eggs, to forage for fish on the reef, fruit bats in the mangrove on Flat Island, and shell fish and mangrove snails in the mangrove channels. *Cycas* *Cycas rumphii* and Mohwa *Manilkara littoralis* seeds are also collected from the groves that are found along the coast. During a recent sea turtle nesting beach survey the following observations were made on the island. The exposed reef is an impediment to the arrival of sea turtles to nest on the beach. The western coast of the island has a large expanse of exposed reef flat; the other sides too are exposed but are not as expansive as the west. The corals exposed are largely of the boulder *Porites* type and some of the branching Staghorn type. The island is visited by Jarawa who swim to the eastern coast from Middle Andaman at low/neap tides when the currents between the islands are at a minimum. Footprints on the beach suggested that a party of Jarawas did visit the island the previous day. On landing we saw their camp strewn with fish bones, cycas seeds, *poon* flowers *Calophyllum inophyllum* that were strung to make necklaces, turtle egg shells, sleeping places made with leaves of cycas, plastic mineral water bottles filled with water from a stream on the main island, a few sweet wrappers, a 'Sunfeast' biscuit packet, one masala packet, rubber chappals from the beach and an unfinished bow. On circumnavigating the island on foot along the beach, tracks of one hawksbill sea turtle and two green sea turtles that had nested were seen; the eggs were collected by

the Jarawa. Two dead green turtles were seen rotting on the beach with damaged carapaces; presumably these had got stuck on the exposed parts of the reef and were killed by wave action during the rising tide. The number of turtle tracks has reduced considerably; moreover the beach has become smaller and less wide as sand that was washed away has not been re-deposited in all areas. Also seen, were tracks of a juvenile crocodile that had come from the sea to bask on the beach, two sea snake tracks, rat paw marks on the soft sand of the beach and a few monitor lizard and spotted deer tracks too. A *poon* tree along the southern shore was lopped of many of its branches by the Jarawas while collecting flowers which we saw made into necklaces at their camp. The mangrove patch (*Rhizophora* sp. along the shore) that is located to the northern and eastern sides has not dried up but the littoral region inside the island composed largely of *Avicennia officinalis* and *Sonneratia* sp. has dried with no tidal inundation taking place after the island rose a few feet above sea level. This has impacted mangrove clams and mangrove snails that inhabit these regions as many dry shells testify. Fruit bats still use the mangrove branches and fresh footprints in the mangrove slush did tell us that the area was visited to forage for this protein source. A clump of stones along with fish bones was found where the Jarawa had baked meat. In effect, despite our inferences it is clear that food resources on the island are still available, but unlike before. It would be wrong to summarize that this would cause a food scarcity amongst the Jarawas and be a reason for them to receive aid and relief. Female sea turtles that arrive instinctively each year to nest are to suffer the ravages of the reef in their urge to nest.

and the consequences of being found within the 5 km limit of coastal waters. Vehicular traffic through the Andaman Trunk Road should be regulated and planned until an alternative is implemented. Enforcement of all these measures can be looked after by the Forest Department with a committee of specialists.

The Jarawa people do not need welfare, policing or management. There is an urgent need to look into welfare requirements of the settlers living around the Reserve. The need to formulate eco-development programmes and alternative sources of income should also be attended to. Pig, deer and fish farming are some probable alternatives that should be encouraged at village level, as these farming operations and methods have been tested and proven successful in other parts of the world.

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8 Andaman Trunk Road and the Jarawa situation

First published in 2002, 'Jarawa contact – ours with them, theirs with us'. K. Mukhopadhyay, R. K. Bhattacharya & B. N. Sarkar (eds). Kolkata, Anthropological Survey of India. (Also refer to Annexure V)

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It is not known when the Andaman indigenous peoples first arrived in these islands. Analysis of the contents of the shell middens have put the oldest records at 2,200 years ago. However, only a few of the middens were excavated and dated. Even the survey of the middens was undertaken only in a few areas. In much of the areas colonized during the last one hundred and fifty years, the middens were destroyed. The deposits in more than 250 limestone caves spread all over the islands, where the indigenous peoples might have taken shelter, have not been surveyed, excavated or dated. So, how the indigenous groups, including the Jarawas, reached the Andamans remains shrouded in mystery. They could very well have arrived in the islands ten thousand years ago or even earlier.

Since the four indigenous tribes of the Andamans appear to be of the same genetic stock and yet speak mutually incomprehensible language or dialect, they probably have been in the islands for a long time, although separated from each other. Occupancy of land over a long period of time is the internationally recognised method of determining right of ownership of land. Compared to the 16-century-old claim of the Muslims on Palestine, the 20-century-old claim of the Christians and 30-century-old claim of the Jews, the Jarawas' claim on the Andamans is probably more than a hundred centuries old. And yet, in the past one and a half-centuries they have consistently been pushed back and confined to an ever-shrinking reserve by others.

Destruction of the Jarawa forests

The Jarawas certainly resented the opening up of their forest habitat for forestry operations including logging by the British colonial administration. There are early British reports of encounters with the Jarawas without any untoward incident. It is possible that the Jarawas were attacked by the British, who mistook them to be the Great Andamanese, who were then hostile, and such incidents pushed the Jarawas towards hostility. But the big push came after independence when the Indian government brought large numbers of displaced persons from erstwhile East Pakistan and resettled them in the Andamans. Apart from a direct invasion of the Jarawa territory, the settlements were located near sources of fresh water, which effectively barred the Jarawas from accessing this vital resource. The consequent loss of territory and life sustaining resources must have made the Jarawas more and more hostile as more and more settlements were established (Tables II, III & IV; Box X and Map III).

Transport in an island system

The induction of the new settlers into the islands brought with it the need for transportation and communication between the headquarters at Port Blair and the settlements and also between one village and another. The easiest method would have been communication by ships and boats and

in the first decade of settlement, sea transport was the main means of mobility between Port Blair and the settlements. The settlers, however, had a continental mind-set, distinctly different from that of a true islander. An islander is not afraid of the sea. In fact, an islander looks at the sea as a major resource base. He or she, therefore, is proficient in swimming and sailing. Most of the island peoples starting from Great Britain and Japan to Philippines, Indonesia and even our Nicobars are seafaring. The immigrant Andaman islanders of today, in comparison, were mainlanders until recently. They did not come here by choice. They were either deported or resettled here after having been displaced from erstwhile East Pakistan, Sri Lanka and Myanmar.

They were handicapped by a natural fear and mistrust of the sea. By and large they are not swimmers. Even now only a few of them own or operate a boat. They conformed to their traditional natural resource use patterns that they practised in the continental system they hailed from. To them, roads are preferred means of transportation. More to the point, the administrators and the decision-makers in the independent era were also mainlanders with similar mindsets and preferences.

Box X /Pressure on the Forests

Andaman Islands are under tremendous pressure due to continual population explosion, exploitation of natural resources beyond regeneration ability and forest fragmentation. Rapid assessment of landscape characteristics along with phytodiversity integrated into a GIS domain clearly depicts the status of biodiversity in the islands. This assessment and its regular monitoring will be helpful in prescribing ecofriendly strategies for conservation prioritization.

The distribution of major vegetation types reflects that evergreen forest is the most dominant class characterized by rich flora, highest biodiversity, value and low disturbance gradient.

However it is also observed that dense evergreen forest has undergone a significant degree of fragmentation, due to extraction and developmental activities and gradually being converted into secondary forest.

The landscape analysis revealed that South Andaman and North Andaman have a maximum area under disturbance. The maximum disturbance was observed in the Port Blair region and adjoining major settlements. Expansion in settlements, agriculture and extraction activities have also resulted in a decrease in species density and diversity. Some parts of Little Andaman are prone to disturbance due to port activities and agriculture expansion. Long stretches of forest in Middle Andaman, Baratang and South Andaman (Jarawa Reserve) are still intact, undisturbed (and) characterized by diverse evergreen formations...

Source: *Biodiversity Characterisation at Landscape Level in Andaman & Nicobar Islands Using Satellite Remote Sensing and Geographic Information System*, 2003. Dehradun, Indian Institute of Remote Sensing.

The Andaman Trunk Road

It was, therefore, only a matter of time before the need for a road connecting all the major settlements was felt. A grandiose project was conceptualized and soon the survey work for the proposed 343 km long Andaman Trunk Road (ATR) started. The road would connect the four major islands of South Andaman, Baratang, Middle Andaman and North Andaman, from Chiriyatapu in South Andaman to Diglipur in the North. It is interesting to note that most archipelago in the world, Indonesia, Hawaiian Islands or Philippines, do not use roads for inter-island communication. Most of Japan also does not, though in the last two decades of the 20th century, Japan has connected a few of the densely populated and industrialised islands by road to handle the huge volume of traffic. This was, essentially, an economic decision.

The Andaman Trunk Road has marginalised the Jarawas like nothing else, admits the Master Plan for Tribal Development (Awaradi 1990). The Jarawas were traumatised by the large-scale tree-felling and use of noisy heavy machinery for construction of the road, which probably also drove away their prey species. The road also effectively cut off their free access to the east coast resulting in further loss of habitat and shrinkage of their area available for resource gathering.

Impact of the ATR

The road was actively opposed and its construction obstructed by the Jarawas from the very beginning. The Jarawas regularly raided the labour camps, drove wedges in the water pipes to obstruct the flow of water and made log barriers. On the other hand, the construction crews were protected by armed policemen and many lives on both sides were lost in skirmishes. According to a report in the local press, the construction agency used to surround the camp with live naked electric wire, a sort of improvised electric fence, which claimed many Jarawa lives.

The road led to the creation of many encroachments *en route*. Initially the workers had put up small huts near their work site. They also soon started growing some vegetables and keeping a few chickens, a goat or a cow to feed themselves in the absence of a market nearby. Often they stayed on in these camps even after the construction was over. The Bush Police, whose duty was to prevent the non-Jarawas from entering the reserve and the Jarawas from coming out of the reserve, turned a blind eye. The Bush Police also had more empathy towards their 'civilised' brethren than for the Jarawas, which emboldened these encroachers. Consequently more encroachments followed. Goats, cows and buffaloes were normally freed during the day for grazing in the forest. If the cattle failed to return in the evening, the owners entered the forest in search of their animals and sometimes confrontations with the Jarawas resulted.

Cost of the road

The present day cost of laying the road (assuming it to be a single lane) from Port Blair to Mayabundar (approximately 250 km) will work out to Rupees (Rs.) 675 million, at Rs. 270 thousand/km. The annual cost of routine maintenance alone exceeds Rs. 150 million and at least Rs. 200 million when special works are involved.

This annual cost of maintenance is actually for only 20% of the total length of the road, as every year 20% of the length is taken up for repairs. Such repair work consumes 38 metric tons of bitumen for every kilometre of the road. To heat 38 tons of bitumen, 88 cords of firewood (approximately 249.04 cubic metres) are used. The consumption of firewood for the 50 km stretch that is repaired every year, therefore, works out to 12,452 cubic metres. Firewood is very much in short supply in the Andamans, the quantum of legal extraction of commercial timber in the whole of Andamans being 80,000 cubic metres only. The road appears to be posing a severe threat to the forest. Since the road passes through virgin forests adjoining the tribal reserve without any foresters or guards, where the firewood comes from can perhaps be guessed.

Besides firewood, the road also consumes substantial quantities of stone/metal chips and sand/quarry dust. Moreover, frequent landslides and caving in of the road surface at curves on the road require large quantities of boulders and rocks to stabilize its surface. The road passes along the eastern part of the Cholunga Range. Further north in South Andaman Island beyond Mount Cadell, the undulating ranges of hills continue, and the road passes across streams and creeks until it reaches Middle Strait. The entire stretch of the road beyond the check post at Jirkatang No. 6 is mountainous, steep and prone to landslides, given the slope, nature of the soil and the large amount of rainfall. Given the fact that quarry products are in short supply and quarrying is recognized to be hazardous for the island ecosystem, the road appears to be generating a high environmental cost.

Traffic on the ATR

In 1996, a total of 3,695 buses and 5,802 other vehicles crossed the Jirkatang check post either way (see Annexure VI for details of a survey of traffic on the ATR). By applying the Indian Road Congress (IRC) norms for calculation of volume of traffic, we find that the road was used by only 515 persons daily; a total of 187,895 people in the entire year. Even if we assume a 50% increase in traffic, the number of users per day would be only 773 or a total of 282,145 in one year. If the cost of repairing the road is divided by the number of users, we get a sum of Rs. 708.85 per user. In other words Rs. 708.85 of taxpayers' money goes to enable a passenger to travel from Port Blair to Rangat for a price of Rs. 45.00, as charged by the government buses.

The Andaman Trunk Road was constructed in phases. Beginning in the early 1970s the work was completed and the road made fully operational in 1989. The construction work continued so long due to:

- High cost of construction
- Difficulty posed by the thick virgin rain forest and undulating terrain.
- Hostile resistance offered to the construction of the road by the Jarawas.
- Periodic reviews by committees to examine the repercussions of constructing the road through the Jarawa territory.

Jarawa opposition to the ATR

Although it is common knowledge that the road passes through the Jarawa territory, some facts will help illustrate why the Jarawas tried very hard to protect their habitat.

Prior to 1900, the Jarawas were known to occupy the interior areas of the South Andaman Island as well as parts of Rutland Island. The group on Rutland Island resisted contact during the British era and were soon pushed to extinction before more could be learnt about them. British punitive expeditions carried out during 1902 discovered many Jarawa camps on both coasts of South Andaman, especially at Pochang, Puttatang, Jarang and at places near Port Campbell. The expeditions traversed the forests to reach the west coast from the east and came upon many old and new camps of the Jarawas, most of which were destroyed to teach the people a lesson. An area six miles west of Port Meadows near the Puttatang Creek was soon identified to be one of the main Jarawa haunts and camping grounds. It can very well be understood that the Jarawa resistance to the construction of the road was primarily due to it passing directly through their territory and disturbing their way of life.

To add fuel to the fire, the development of the road through South and Middle Andaman Islands also brought about forestry operations, further aggravating the condition of the Jarawas and destroying their forests. One notification issued by the Chief Commissioner of the Islands in 1957 virtually declared the whole of the northern part of the South Andaman Island as a Tribal Reserve. The same authority later amended the notification in July 1979 to exclude areas east of the Andaman Trunk Road from the Tribal Reserve and opened the forest to logging as well as for construction of the road.

The eastern portion of forest along the trunk road beyond Jirkatang was felled in suitable areas and regenerated with commercial species of timber including plantations of padauk, teak and didu. This had definitely caused great distress to the Jarawas as it ruined their former hunting grounds and reduced the diversity of food species due to the creation of timber plantations, extraction and hunting by non-tribals.

The forestry operations included setting up temporary camps at Pochang, Katora, Poona Nullah and

Puttatang and even a forest depot at Port Meadows. Forestry operations were finally stalled after March 1996 when about 60 to 70 Jarawas ambushed extraction workers of the Forest Department at Puttatang from three sides, killing two and injuring three of them. The Puttatang camp has still not been abandoned and a skeletal staff has been kept there to maintain a token presence.

Many incidents of conflict had taken place on the road since the 1970s and increased over the years till 1998, when the situation changed. The number of Jarawas killed during the road construction will never be learnt, be it by electrocution, bullets or other means. Attacks on labourers, Bush Police, trucks and buses were indicative of the Jarawas' opposition to the intrusion into their lives and territory, which today is seemingly complete.

The Jarawas and ATR today

The road, on the other hand, has in recent times become the camping ground of some Jarawas and also points of official and non-official contacts. Disease and illness are just beginning to surface, the recent epidemic of measles being a case in point. In September 1999, there was an outbreak of an epidemic among the Jarawas of South and Middle Andamans. This was identified as measles. The diagnosis of the measles had only been done on the basis of clinical symptoms and if the process continues, will probably end with the extinction of the people.

Usually women and children are seen on the road or on jetties with most men out hunting or gathering food; or otherwise admitted in the hospital. Of the whole group, it is the children who seemingly are enjoying the situation, as it is novel and they are probably unaware of the situation of enmity that existed before. They mix with all and sundry exposing themselves to illnesses and cultural practices that they may well find difficult to cope with in future. It is thus important for us to use alternate routes of transportation as the road poses the severest threat today to the existence of the Jarawas in many ways.

Water transport is the best

Water transport is accepted to be the cheapest mode of transport the world over. Inter-island communication in all archipelagos in the world is by ships and boats. While the traditional islanders like the Nicobarese and the Onges are excellent navigators and seafarers, the immigrant population came here with a continental mindset and even after settling here permanently, has retained it. To make the economy of the region viable and self-sustaining, it is essential that we learn to be seafarers and look to the sea for our major resource gathering activities.

A direct boat to Rangat or Mayabundar from Port Blair actually takes less time than the bus. It also consumes less fuel per passenger/per ton of cargo and does not need a road to be maintained at a very high cost, both

financial and environmental. This mode of transport is also subjected to fewer accidents.

The ships and boats available with the island administration today are more than sufficient to take care of the present day traffic. Twenty-four more passenger ships/boats are also expected to join the fleet shortly. Each boat can comfortably make at least one round trip every day.

Why don't we, then, use this much more viable alternative to the Andaman Trunk Road, the sea route? What is lacking is only the political and administrative will, impaired by the superstitious continental mind-set. Or is it that, 'At the heart of the state policy is an unstated desire to drive the Jarawas out of the forest, so that extraction of timber and sand can proceed without hindrance,' as one researcher observed? We should not forget that as early as in 1952, the then Chief Commissioner wanted a small aircraft to bomb the Jarawas. Mr. D.S. Negi, IAS, a former Secretary of the Administration in 1991 had remarked, 'Building of this road (the Andaman Trunk Road) was a cardinal folly.' Even in 1980, an environmental impact assessment done by the Centre for Taxonomic Studies criticised this road and suggested the use of alternative waterways.

Conclusion

Anthropologist Jayanta Sarkar opined, 'No habitations whether official or private should be located in the vicinity of the borders of the Jarawa Reserve and certainly not within the reserve.' But while we know what is right, we often do what is wrong. Mr. Bakhtawar Singh, a former member of the Police Force and the person instrumental in establishing friendly contact with the Jarawas, has in the past repeatedly spoken of the Jarawas as *azad* or free people since the second-world-war years. He laments that they do not appear to be *azad* today.

Our constitution guarantees us and the Jarawas the right to life. The Honourable Supreme Court's interpretation of right to life is not merely to remain alive but to enjoy a certain quality of life. We should bear this in mind while framing our course of action.

Senior administrators have expressed reservations in this seminar about media reports and sensationalising by the press. The media can sensationalise only when the administrators try to hide facts. In a transparent administration, media will find nothing to 'scoop'. Mature democracies allow their media full independence in reporting and even in reporting badly. Let us do likewise. Who is to be the judge in deciding what is good or bad? Even if the press is doing badly, muzzling the press is not the solution.

The scientists, including the social scientists, should write for the people avoiding jargon so that even the uninitiated can understand the issues involved. One remembers Margaret Mead, Bronislaw Malinowski, Stephen Hawking and Carl Sagan.

The taxpayers pay for the services of administrators and even anthropologists and doctors. Surely they have

the right to know what is being done with their money. Who is to inform them but the media? The taxpayers are neither adolescents nor imbeciles. They deserve to know the whole truth, not a censored or watered-down version, as was attempted while reporting the recent epidemic of measles in the Jarawa population.

Most extractable timber from the available forests in Andamans stands already removed. The Forest Department declared that further extraction of sand in South Andaman is not possible. Covetous eyes of the timber industrialists and builders are on the Jarawa Reserve. The road permits a means of gathering resources illegally until it is legalised in due course of time, which seems inevitable. Let us close the road and remove this temptation. Our technological society of today creates more needs than can be met. A bit of self-restraint will be welcome.

A huge responsibility rests on us. No mere mortal should be asked to decide the question of life and death of an entire tribe. I only hope that thirty years from now, one of us sitting on a seaside bungalow, sipping a cup of coffee or a drink, should not have to sigh and say 'If only I had decided otherwise at that time, the Jarawas would have been alive today!'

9 'The ATR is like a public thoroughfare through one's private courtyard'

Note in the 'Report of the Expert Committee on the Jarawas of Andaman Islands' submitted to the Kolkata High Court in July 2003.

*Dr. RK Bhattacharya **

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As a member of the Expert Committee on the Jarawas, I submit the following recommendations regarding the closure of the Andaman Trunk Road as I feel this issue has not clearly and directly been dealt with in the report submitted by the Expert Committee on the Jarawas. Besides, the Committee's report has not attempted any straightforward solution to the problem that the Jarawas face due to this thoroughfare through their abode. I would appreciate if my recommendations are considered worthy.

Recommendations for the closure of the portion of the ATR passing through the Jarawa territory

It is difficult to turn back the hands of the clock and this is true especially in the case of the ATR that serves us in many ways. However, after long and serious deliberations and first-hand experience the following are the points that should be kept in the forefront of all future decisions:

1) The ATR passes through an area that contains an important aspect of cultural heritage of mankind and this highway disturbs the heritage in probably irreversible ways. We are seriously committed to preservation and maintenance of culture and heritage and the human component of culture and heritage is something we cannot overlook or ignore. The ATR is like a public thoroughfare through ones' private courtyard.

2) The issue is what culture and heritage we are trying to preserve and maintain. The Jarawas have been able to survive and continue their traditions for millennia because they have had at their disposal a territory that did not face the problems of encroachment or of being reduced. The ATR has truncated their area of habitat. The ATR runs north-south and the Jarawa territory extends both along and on either side of the highway. Their economic system that is dependant on hunting and gathering requires a large area and as a result of the ATR, the eastern part of the territory is almost out of bounds of these people. This has resulted in more indiscriminate poaching and the eastern part is like a no man's land.

3) The ATR has brought a reduction in the resource base of the western part of the territory too. The western part adjacent to the highway is no longer a hunting ground for the Jarawas because of the non-availability of animals. Over time with continuous use of the highway this shortage will become acute.

4) Our steps in closing the highway going through the Jarawa territory would not only restore the earlier strength of the Jarawa economy and their social and cultural autonomy but would also help us in preserving the biosphere of the fast denuding and diminishing rain-forest of the islands.

5) The maintenance of the ATR further depletes the natural resource of the area.

6) The people who are engaged in the regular maintenance of the highway bring with them diseases against which the Jarawas are not immune. This has been shown very clearly in the case of outburst of malaria among a section of the Jarawa population. We are yet to ascertain the other diseases that may affect them through contact. As a result it is difficult to take prophylactic steps for intervention.

7) The ATR brings the Jarawas into contact with a highly transient population. Often the curiosity value about the Jarawas results in indiscriminate voyeurism.

8) The regular commuters like vehicular drivers, cleaners, tourist touts and police personnel deployed for maintenance of law and order on the ATR are in constant touch and interaction with the Jarawas. They have introduced the addictive habit of chewing tobacco among the Jarawas for which they are ready to barter items procured from the forest or made by them. The exchange is obviously loaded against the Jarawas. Tourists coming to see the Jarawas give them alien foods of all kinds and thereby cause health hazards like caries in teeth, diarrhoea and other food borne diseases. These conditions of health and hygiene need to be controlled urgently before the Jarawas are incapacitated.

9) The Jarawas often are found taking a ride on the roofs of overloaded buses or in trucks transporting heavy goods to go from one point to another. This is a highly dangerous practise, as even one accident will wipe out a sizeable percentage of the existing population that is deplorably small.

10) The Jarawas will still have scope for continued interaction with the villages settled in nearby villages. This interaction can be more easily regulated and monitored as well as this could be used as a means of mutual learning about each other. This would also provide the ambience of gradual adaptation and adoption. The interaction with the transient commuters and tourists on the ATR at present is in sharp contrast to this, in fact there is very little positive outcome.

11) There were some objections from many quarters including some from the government regarding the proposal of laying of the ATR. We understand the wisdom of those objections. During the construction of the ATR, the Jarawas expressed their protest through a severe display of hostility. Ultimately, this marginalized community of hunters and gatherers was forced to withdraw into deeper forest leaving a large area of their territory, as it was no longer tenable for them to use it freely. In the whole of human history we find that the dominant group for their own advantage has always won over the minorities not always paying attention to the issue of ethics. Closure of the ATR would perhaps be the first gesture of goodwill on

the part of the dominant towards an acutely marginalized group almost on the verge of extinction.

12) We have experience of relocating tribes, viz. the Great Andamanese and the Onges. The experience has not been encouraging, rather there has been permanent damage caused to their heritage and autonomy. The feeling among these people is that they have been abandoned though the government is under the impression that they have done their best. There is need to audit the outcomes of the schemes and development strategies that are adopted and executed. This strongly suggests that there is very little alternative but to restore their territorial rights in the existing habitat.

13) There is ample scope for reparation of economic setbacks caused due to the closure of the ATR. Alternatively, the sea routes could be proliferated and could be developed into an employment generating and attractive way of transportation. If we did a cost-benefit analysis we may be surprised to find that maintaining the ATR with ferries at two points is costlier than developing the sea routes. Also, sufficient funds need to be earmarked for maintenance of the road surface of the ATR, the deployment of guards/police force as well as the AAJVS for protection and welfare. Closure of the ATR will make it possible to cut down on the costs. I draw attention to Samir Acharya's 'ATR and the Jarawa situation' in Chapter 8 and Jarawa contact – ours with them and theirs with us (2002, Anthropological Survey of India, Kolkata) for a detailed cost-benefit analysis of the above.

14) Apprehension regarding 'shock' of the Jarawas due to the sudden closure of the ATR 'one fine morning' is really unfounded. There are many instances of tribes 'overcoming' quite comfortably, even prolonged periods of interaction with non-tribes. The Jarawas, comparatively have had limited interactions, in terms of language and economics (just to mention the two very significant areas), with non-tribes. The Jarawas until now have not shown any particular proclivity to prolong their stay in 'alien' territory (in this case, hospitals); rather they seem very well adjusted to their forest habitat. They are very conscious of poaching and other kinds of encroaching on their lands and this also indicates that they are motivated to guard their territory.

15 July 2003

*Dr. R.K. Bhattacharya, Member,
Expert Committee on the Jarawas*

10 Management of traffic on the ATR

Note in the 'Report of the Expert Committee on the Jarawas of Andaman Islands' submitted to the Kolkata High Court in July 2003.

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The Andaman Trunk Road (ATR) could be just a 'corridor'/passage for the traffic. Only tar/metaled parts of the road could be declared as non-tribal area. Entry beyond the tar portion without valid permit shall amount to offence under the law. So road and other infrastructure maintenance people who are to work along the edge of metal road shall also have to get the permit from the competent authority with prescribed conditions. The carriages on the ATR shall be specially designed and traffic on the ATR shall only be in convoys and under total control.

The drivers and passengers have to follow certain DOs and DONTs. The special measures of the ATR may include the following:

- The specially designed government run buses and specially designed cargo trucks will only be allowed to ply in the Jarawa sector of the ATR.
- All other vehicles including government cars, jeeps, vans, trucks, private buses, cars, van, jeeps etc will operate up to the terminal points like Jirkatang in South Andaman Island and Kaushalya Nagar in Middle Andaman Island.
- All the travelers moving in the Jarawa sector of the ATR will have recorded identity. The permanent inhabitants of A&N Islands shall carry the Islander's Identity Card, the government servants will carry their own Identity Card and the rest will carry the Tourist Identity Card issued by the designated government agency. The tourists shall be issued such identity cards on furnishing the required details and declarations to the government agency.
- State transport buses specially designed shall be deployed for ferrying the travelers in the Jarawa sector of the ATR. Sufficient number of such buses will be deployed to ensure the required and reasonable comforts to the travelers and also to maintain time efficiency.
- There shall be no ladder to the roof top of buses or the ladder should be designed in such a way that the same could be folded before the vehicle enters Jarawa sector of the ATR.
- There shall be wire net window screens to prevent dropping of alien items by travellers which would harm Jarawas.
- Fully covered i.e. hooded trucks without ladder/foldable ladder could only be allowed to pass through the Jarawa sector of the ATR so that the Jarawas, particularly children, would not climb on to such trucks.
- Vehicles will move in close convoy with police escort. Vehicles will not stop, to avoid climbing of the vehicles by Jarawas.
- Compulsory briefing of drivers at the check-posts by police about DOs and DONTs for the safety of Jarawas and sensitizing the passengers by playing recorded cassettes as soon as vehicles cross the check-posts.

- Playcards of DOs and DONTs shall be prominently displaced in a few places in vehicles and different locations along the ATR.

- A speed limit of, say, 45 km per hour could be notified for the vehicles on the ATR in the Jarawa sector.

- With this speed limit, the convoy consisting of the loaded trucks, buses, etc. would move in close line. The police escort and the personnel belonging to welfare agencies – who have gained a capacity to converse and convince the Jarawas, in case the Jarawas stop the convoy – will be sitting in the first vehicle. The police escort in the first vehicle could maintain contact with his counterpart sitting in the last vehicle of the convoy and thus can ensure that the convoy goes in one unit and also prevents interface of Jarawas with non-Jarawas.

- Anybody breaking the convoy by over taking could be booked by police effectively for violating the notified speed limit.

- Constant wireless/mobile communication with convoys and check-posts (Jirkatang, Middle Strait, Kadamtala, Adajig No. 3, Adajig No. 15 etc.) shall be maintained.

- 'No Horn Zone' shall be notified for the Jarawa sector of the ATR so that the drivers are prohibited from sounding horns and thus dissuaded from over taking and breaking up the convoy and do not affect the Jarawas in their hunting activities by scaring away the pigs.

- No traffic on any point on the ATR after 1700hrs.

- The transporters to ensure that vehicles plying on the ATR are well maintained to avoid possible breakdown in the Jarawa area.

- In case of the breakdown of the vehicle in the Jarawa area the police in the convoy could contact the Police Patrolling Team – having mainly women police – on the ATR so that the patrolling van could reach the spot to ensure that no untoward and undesirable activities occur due to such breakdown.

- Breakdown vans with towing facilities shall be positioned at selected locations on the ATR like Potatang, Kadamtala etc. ready to reach spots of breakdown to retrieve vehicles quickly.

- Automobile garages shall be encouraged at strategic locations (like Jirkatang, Baratang, Kadamtala etc.) for repairs of vehicles plying on the ATR.

- Maintenance workers for the ATR and Optical Fibre Cables (OFC) etc. are to be medically screened thoroughly before they enter the Jarawa sector with permits issued by the competent authority (Deputy Commissioner).

- Deployment of mobile piquet of welfare personnel (consisting of mainly women) and women police piquet for maintenance gangs.
- No maintenance workers will enter Jarawa territory beyond the road belt for any purpose like collection of wood or other resources including even water.
- Avoiding the presence of non-tribals in the maintenance work of the infrastructure i.e. the ATR and OFC, and maximum mechanization as far as possible could be adopted.
- Ensuring the maintenance work only between 0700hrs and 1600hrs.

Conclusion

The closure of Andaman Trunk Road has been strongly recommended by some experts as if such closure would take care of everything else for the well-being of Jarawas. The Andaman Trunk Road is not the only place where the Jarawas are subjected to possible exploitation and harmful effects due to non-tribals. Further, it is worthwhile to note that there is no Andaman Trunk Road in Tirur Jarawa area to close down.

Mere closure of the Andaman Trunk Road may not address the problem arising out of Jarawas themselves coming out into villages and non-tribal areas. Further, the non-tribals could enter the Jarawa areas through vast coastline and the village boundary adjoining the Jarawa territory.

Jarawas are vulnerable for exploitation not only on the Andaman Trunk Road but also in the other non-tribal areas and also in the Jarawa Forest itself. Therefore, the measures like a Buffer Zone approach would be indispensable for the well-being of the Jarawas.

Annexures



EXPLANATORY NOTES ON THE ANNEXURES

That the annexures occupy a significant portion of this dossier is indicative of the fact that the information they provide is as important as the opinions and perspectives that come in the initial part. The reasons and logic for including these documents here are briefly articulated below.

I Andaman and Nicobar Islands Protection of Aboriginal Tribes Regulation (ANPATR) – 1957 including all amendments till 2004

This regulation is at the heart of the legal framework that decides policy about the Jarawa community, and actually allows for the creation of the Jarawa Tribal Reserve. It is an extremely important document for anyone who is interested in issues related to the Jarawas, or for that matter, any of the other aboriginal tribes of the Andaman & Nicobar Islands.

II Policy on Jarawa Tribe of Andaman Islands – as approved by the Kolkata High Court in 2004

This policy as approved by the Kolkata High Court is one of the most sensitive policy formulations for the Jarawas. It was the outcome of sustained collaborative action by independent researchers, activists and committed government officers. Unfortunately, the good intentions have remained on paper and little has been done to implement the policy on the ground.

III Andaman Adam Janjati Vikas Samiti (AAJVS) Rules as amended on 05/07/2004

The AAJVS or the Andaman Tribal Welfare Organisation is the nodal agency tasked with the welfare of the Jarawas and the other aboriginal tribal communities in the Andaman Islands. A lot of financial resources are provided to the AAJVS in the name of tribal welfare here and questions continue to be raised on where the money is used and how. Many believe that reformation of the AAJVS to make it more transparent and accountable is essential to ensure the rights and the well-being of the tribal communities that is supposed to be responsible for.

IV Medical Regime for treatment of Jarawas

Health issues and medical regimes for aboriginal communities who have remained in voluntary isolation for a long time are one of the most critical and hotly debated issues worldwide. It is not too different in the case of the Jarawa who have experienced at least two epidemics of measles in less than a decade. This document is the entire text of the March 3, 2006 communication received from the Directorate of Health Services, A&N Administration in response to a request for information for this dossier.

V Jarawa Camps in the Forest

These locations of the Jarawa Camps in the forests of the Jarawa Tribal Reserve were collectively gathered by the Anthropological Survey of India, the Botanical Survey of India and the Zoological Survey of India. This was first published in the report submitted to the Kolkata High Court in 2003 and was part of the process to formulate the policy for the Jarawa (Annexure II). Information like this is very important and useful in understanding Jarawa use of the forests and also the resources that are found in various parts of the reserve.

VI Assessment of Traffic on the Andaman Trunk Road

The Andaman Trunk Road (ATR) is one of the most hotly contested subjects in the Andaman islands. A Supreme Court of India order passed in 2002 had asked for the closure of this road in those parts where it runs along or through the forests of the Jarawa Reserve. Unfortunately, however, this road has still not been shut down and the A&N administration continues in willful contempt of the highest court of the land. This annexure provides crucial and 'only of its kind' information to understand the use of the road by vehicles, and by implication the potential impact of the road on the Jarawa.

VII Conflict incidents involving the Jarawa – a compendium

The history of the Jarawas is replete with incidents (some recorded, many that never were) of conflict between them and the settlers who came from outside into their forests and lands. Annexure VII is perhaps the most comprehensive compilation of all the recorded instances of conflict. Further analysis of these information is bound to give us a much better and nuanced understanding of the various aspects of the history of the situation and the tribal non-tribal interface.

VIII Contact list of relevant organizations and resource persons

IX Project Concept note

This September 2005 note is the base on which the project for the compilation of this dossier was initiated.

Annexure I

Andaman and Nicobar Protection of Aboriginal Tribes Regulation (ANPATR) – 1956 including all amendments until 2004



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The Andaman and Nicobar Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

No. 4, PORT BLAIR, SATURDAY 30 JUNE 1956

*Office of the Chief Commissioner
Andaman & Nicobar Islands*

NOTIFICATION

Port Blair, 18 June 1956

No. 76/56: The following Regulation promulgated by the President under clause (2) of article 243 of the Constitution and published in the *Gazette of India*, Extraordinary, Part II, Section I, dated the 14 May 1956, is republished here for general information.

Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956

No. 3 of 1956: Promulgated by the President in the seventh year of the Republic of the India.

A Regulation to provide for the protection of the interests of socially and economically backward aboriginal tribes in the Andaman and Nicobar islands. In exercise of the powers conferred by clause (2) of article 243 of the Constitution, the President is pleased to promulgate the following Regulation made by him.

- I (1) This Regulation may be called the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956.
- (2) It extends to the whole of the Andaman and Nicobar Islands.
- (3) It shall come into force on such date as the Chief Commissioner may, by notification appoint.
- 2 In this Regulation, unless the context otherwise requires:
 - (a) 'aboriginal tribe' means any of the following tribes or tribal communities in the Andaman and Nicobar Islands, and includes parts of, or groups within, such tribes or tribal communities, namely; Andamanese, Jarawas, Onges, Sentinelese, Nicobarese and Shompens;
 - (b) 'Chief Commissioner' means the Chief Commissioner of the Andaman and Nicobar Islands;
 - (c) 'Deputy Commissioner' means the Deputy Commissioner of the Andaman and Nicobar Islands;
 - (d) 'notification' means a notification published in the Official Gazette;
 - (e) 'pass' means a pass granted under section 7; and,
 - (f) 'reserved area' means an area which the Chief Commissioner has, by notification under section 3, declared to be a reserved area.
- 3 (1) The Chief Commissioner may, by notification, declared any area which is predominantly inhabited by aboriginal tribes to be a reserved area and specify the limits of such area; and may, from time to time, in like manner, alter such limits.
- (2) If any question arises whether any area falls within or without a reserved area, it shall be decided by the Chief Commissioner and his decision shall be final.

- 4** No waste or unoccupied land at the disposal of the Government in a reserved area shall be allotted for agricultural purposes to any person other than a member of an aboriginal tribe:
 Provided that the Chief Commissioner may allot any such land to any person other than a member of an aboriginal tribe –
 (a) if the Chief Commissioner is satisfied that such land is not required by any such member; or
 (b) if in his opinion the allotment of land to a person other than a member of an aboriginal tribe is necessary for the purpose of consolidation of land or is otherwise in the public interest.
- 5** (1) No member of an aboriginal tribe shall, except with the previous sanction of the Chief Commissioner, transfer by way of sale, exchange mortgage, lease or otherwise any land to any person other than a member of an aboriginal tribe.
 (2) No land held or occupied by a member of an aboriginal tribe shall be liable to attachment or sale in execution of any decree or order of a civil or revenue court.
 (3) Any transfer, attachment or sale of any land made in contra-vention of this section shall be void.
- 6** (1) No person other than a member of an aboriginal tribe shall, except with the previous sanction of the Chief Commissioner, acquire any interest in any land situated in a reserved area or in any product of, or crop raised on, such land, or shall, except under and in accordance with the terms and conditions of a licence granted by the Chief Commissioner, carry on any trade or business in any such area.
 (2) The provisions of sub-section (1) shall apply to any person who, at the commencement of this Regulation, is carrying on any trade or business in any such area after the expiration of 60 days from such commencement.
- 7** The Chief Commissioner may, by notification, prohibit any person other than a member of an aboriginal tribe or any class of persons other than members of an aboriginal tribe from entering a reserved area except on the authority and subject to the observance of the conditions and restrictions of a pass granted by the Deputy Commissioner or by such other officers as the Deputy Commissioner may authorises in writing in this behalf.
- 8** (1) Whoever in contravention of the provisions of section 6, acquires any interest in or in any product of, or crop raised on, any land, or carries on any trade or business, in a reserved area, shall be punishable with imprisonment which may extend to one year, or with fine which extend to one thousand rupees, or with both; and the interest so acquired shall be disposed of in such manner as the Chief Commissioner may, after taking into consideration the circumstances of the case, direct.
 (2) Whoever, in contravention of the notification issued under section 7, enters a reserved area shall be punishable with imprisonment which may extend to one year, or with fine which may extend to one thousand rupees or with both.
 (3) Whoever, does anything in contravention of any of the conditions or restrictions subject to which a pass has been granted to him under section 7, shall be punishable with imprisonment which may extend to one year, or with fine which may extend to one thousand rupees, or with both.
- 9** (1) The Chief Commissioner, or any person authorised by him in this behalf, may arrest without a warrant any person who has committed, or is suspected of having committed, any offence punishable under this Regulation.
 (2) Every person arrested under sub-section (1) shall be produced before the nearest magistrate within twenty four hours of such arrest excluding the time necessary for the journey from the place of arrest.
- 10** (1) The Chief Commissioner may, by notification make rules to carry out the purposes of this Regulation.
 (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for the form in which, the conditions and restrictions subject to which, and the fee not exceeding rupees fifty on payment of which, a pass under section 7 shall be granted.
- 11** The provisions of this Regulation and of any rule made thereunder shall have effect notwithstanding anything inconsistent there with contained in any other law for the time being in force or any instrument having effect by virtue of any such law, or in any usage or agreement, or in any decree or order of any court or other authority.

Rajendra Prasad, President
K. Y. Bhandarkar, Secretary to the government of India
By order
Ram Saran Das, Assistant Secretary (Judicial) to the Chief Commissioner, A & N Islands.

*Office of the Chief Commissioner
Andaman & Nicobar Islands*

NOTIFICATION

Port Blair, the 19th June 1956

No. ANPATR/1(3)/1: In exercise of the powers conferred by sub-section (3) of section 1 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1/56 No. 3 of 1956, the Chief Commissioner, Andaman and Nicobar Islands, is pleased to appoint the first day of July 1956 to be the date from which the said Regulation shall come into force.

C. Ramachandran, Chief Commissioner, A & N Islands [F. 1-89(1)/54-56] G.P. 77/56



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The Andaman and Nicobar Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

No. 3, PORT BLAIR, TUESDAY 2 APRIL 1957

*Office of the Chief Commissioner
Andaman & Nicobar Islands*

NOTIFICATION

Port Blair, Tuesday 2 April 1957

No. ANPATR/3(1)/1: In exercise of the powers conferred by sub-section (1) of section 3 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956, (Regulation No. 3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands, is pleased to declare each of the following areas to be a reserved area, namely:

(a) 'South Andaman

The part of South Andaman Islands situated in the west of the imaginary boundary line including coastal water upto 3km starting from the mouth of Constance Bay proceeds north upto north west corner of village Tirur and thence proceeds towards east-north and joins Andaman Trunk Road at a point 2km south of Miletalak from where the boundary proceeds towards north upto Middle strait point along the western side of Andaman Trunk Road having a 200 metre belt excluding village areas of Miletalak and all allotted land of Jirkatang area. From middle Strait point the boundary proceeds towards north via Needhan reach, enclosing Bluff and Spike Islands, to Yeratil Jig² [and New survey No. 2265/5 area measuring 1000 sq. metres situated at Aberdeen Village, Port Blair, Andaman District].

(b) ³Middle Andaman

The part of the Middle Andaman Islands situated in the western side of the imaginary boundary line including coastal water upto 3km starting from Yeratil Jig and proceeds towards north-east excluding village areas of Kadamtala and touches Andaman Trunk Road at a point 12km north of Uttara Jetty and passes alongside the road leaving 200 metre belt upto 24km point of the Andaman Trunk Road from Uttara Jetty and thence due north through jungle upto a distance of 6km and then towards north-east from a distance of 7km and further proceeds due north for 11km and then joins Wolaga Boilu Creek. Thereafter the boundary line proceeds north-west through the boundary Wolaga Boilu Creek upto the point 1/3km from the northern tip of the village Hanspuri and skirt around South West and southern side keeping the same half a km distance from village Hanspuri extending and culminating ultimately at Bush Police Camp No. 32 facing the luice Inlet including entire Wolaga Boilu, Melagar Boilu and Mar Boilu Creeks].

(c) The entire area comprised in, and enclosed within the coast line of each of the following Islands.

- (i) ⁴[***]
- (ii) North Sentinel
- (iii) Cinque
- (iv) Passage
- (v) Sisters
- (vi) Brothers
- (vii) South Sentinel and other islands and islets situated south wards in the territory of the Andaman and Nicobar Islands upto and including Little Andaman⁵ [except the area on the eastern coast of Little Andaman Island located within the following co-ordinates:
Longitude: between the longitude 92°28 minutes East and 92°35 minutes East.
Latitude: between latitude 10° 34 minutes North and⁶ [10° 45 minutes 30 seconds] North].
- (viii) ⁷[Strait Island]

(d) The entire area comprised in, and enclosed within the coast line of each of the following islands but excluding the area comprising the air-field in Car Nicobar and the ports of Camorta and Car Nicobar⁸ [and the area located between the co-ordinates mentioned below in the eastern coast of Great Nicobar Island.

Longitude: the area between longitude 93° 50 minutes East and 93° 57 minutes East.

Latitude: the area between latitude 6°53 minutes North and 7° 2 minutes North]

- (i) Car Nicobar
- (ii) Batti Malv
- (iii) Chowra
- (iv) Tillangchong
- (v) Teressa
- (vi) Bompoka
- (vii) Camorta
- (viii) Trinket
- (ix) Nancowry
- (x) Katchall
- (xi) Meroe
- (xii) Trak
- (xiii) Treis
- (xiv) Menchal
- (xv) Little Nicobar
- (xvi) Pulo Milo
- (xvii) Great Nicobar
- (xviii) Kondul
- (xix) Kabra

T.G.N. Ayyar
Chief Commissioner, A & N Islands
[F. 1-89(1)/56-G] G.P.43/57

- 1 Substituted vide Notification No.107/7/F.No. 40.243/78-TW dated 19th July 1979 for 'The area in South Andaman to the west of an imaginary line starting north-eastwards from the mouth of Constance Bay along Bajalunta Jig to the Southern tip of Choluta Range and then proceeding northwards to Mount Cadell and from there eastward to Pochange Creek and thence along the eastern coast of South Andaman Island proceeding to a point approximately 600228 (omitting James, Kyd and other islands and islets) and thence from that point northwards along an alignment to be aligned by the Andaman and Nicobar Islands Forest Department taking into consideration the suitability of terrain and water points to join Putatang Jig and thence northwards along Putatang Jig and Amitla Soicha Passage of Middle Strait along the east coast of South Andaman excluding Belle Island, Bonig Island, Oral Kaicha and Baby Island proceeding to Yeratil Jig via Needham Reach and Port Anson enclosing Bluff and Spike islands.'
- 2 Inserted vide Notification No. 1-467/86-TW dated 2nd November 1989.
- 3 Substituted vide Notification No.107/7/F.No. 40.243/78-TW dated 19th July 1979 for 'The area in Middle Andaman to the west of an imaginary line emerging from South Andaman and proceeding northwards from Yeratil Jig to 9 [Bush Police Post No.4 (Maps reference 772425) and thence due west to the coast below point June (Map reference 625029)] along the Bush Police Line subject to an adjustment that the line may coincide with an alignment to be aligned by the Andaman and Nicobar Islands Forest Department in Porlob and Boroin Yol areas between the Yeratil Charalunga Bush Police posts provided that sufficient land is left to the west of such alignment on the eastern side of the Range to provide enough hunting ground to Jarawas while they are on the move and bearing in mind the suitability of such alignment, from the point of view of water and terrain, as a patrol path.'
- 4 The word 'Rutland' omitted vide Notification No. 65/73/F.No. 81-14/72-J.I dated 24th May 1973.
- 5 Inserted vide Notification No. 62/72/F.No. 81-9/71-J (I) dated 20th April 1972.
- 6 Substituted vide Notification No. 108/77/F.No.15-222/76-J. I dated 27th May, 1977 for '10° 44 minutes'
- 7 Inserted vide Notification No. 95/72/81-15/72-J (I) dated 28th June 1972.
- 8 Inserted vide Notification No. 62/72/F.No. 81-9/71-J (I) dated 20th April 1972.
- 9 Substituted vide Notification No. AN PATR/3(I) I dated 1st December, 1959 for 'Ranger's Channel'



The Andaman and Nicobar Gazette

EXTRAORDINARY
PUBLISHED BY AUTHORITY

No. , PORT BLAIR, SUNDAY 21 APRIL 1957

*Office of the Chief Commissioner
Andaman & Nicobar Islands*

NOTIFICATION

Port Blair, 21st April 1957

No. ANPATR/7/1: In exercise of the powers conferred by section 7 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956, (Regulation No. 3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands, is pleased to prohibit every person other than a member of an aboriginal tribe from entering a reserve area in the Andaman and Nicobar Islands except on the authority, and subject to the observance of the conditions and restrictions, of a pass granted by the Deputy Commissioner of the said islands or such other officer as the said Deputy Commissioner may authorise in writing in this behalf.

¹[The Chief Commissioner, Andaman and Nicobar Islands is pleased to order that all Government servants while proceeding on duty to a reserved area and the families of such government servants shall be exempted from taking out a pass or passes for entering a reserved area in the Andaman and Nicobar Islands. 'Family' means Govt. servant's wife, children, step children, parents and sisters and minor brothers if residing with and wholly dependable on him.]

²[The Chief Commissioner, Andaman and Nicobar Islands, hereby order that the employees of the Indian Rubber Board while proceeding on duty to a reserved area shall be exempted from taking out a pass or passes for entering a reserved area in the Andaman and Nicobar Islands subject to the condition that each such employee is provided with an Identity Card by the Rubber Board or its duly authorised officer.]

³[The Lieutenant Governor (Administrator) Andaman and Nicobar Islands has been pleased to order that all the Defence personnel while proceeding to a reserved area in the discharge of their specific duty in organized body shall be exempted from taking out a pass for entering in such area in the Andaman and Nicobar Islands. The Administration will be intimated about such movement so as to inform elements of Bush Police and forest employees working in the area.]

*T.G.N. Ayyar
Chief Commissioner, A & N Islands
[F. 1-89(1)/56-G]
G.P.52/57*

- 1 Inserted vide Notification No. 10/60 dated 18th January, 1960.
- 2 Inserted vide Notification No. 6/69/50-8/68-J.1 dated 16th January, 1969.
- 3 Inserted vide Notification No. 181/90/F.No. 1-467/86-TW dated 9th November, 1990.



The Andaman and Nicobar Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

NO. , PORT BLAIR, SUNDAY 21 APRIL 1957

*Office of the Chief Commissioner
Andaman & Nicobar Islands*

NOTIFICATION

Port Blair, 21st April 1957

No. AN/PATR/10/1: In exercise of the powers conferred by section 10 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation No. 3 of 1956), the chief commissioner, Andaman and Nicobar Islands, is pleased to make the following rules to carry out the purposes of the said Regulation, namely:

The Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Rules, 1957

CHAPTER I: PRELIMINARY

1 Short title and commencement

- (1) These rules may be called the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Rules, 1957.
- (2) They shall come into force at once.

2 'Definitions: in these Rules, unless the context otherwise requires

- (a) 'Deputy commissioner' except in Sub-rule (2) of rule 13 includes an officer authorised by him under section 7 to grant passes;
- (b) 'Form' means Form prescribed in the schedule appended to these rules;
- (c) 'General trade or business' means the trade or business covered by the licence in Form 'F'.
- (d) 'Licence' means a licence granted in Form 'F' or in Form 'H' by the Chief Commissioner under Sub- section (1) of section 6 to carry on in any reserved area general trade or business, or miscellaneous trade, as the case may be;
- (e) 'Licensee' means a person, or a body of individuals including a member or member or members of an aboriginal tribe, to whom a licence has been granted;
- (f) 'Person' does not include a member of an aboriginal tribe;

(g) 'Miscellaneous Trade' means the following:-

- 1 Works relating to P.W.D. and I.A.F contracts;
- 2 Stevedoring;
- 3 Sale of timber;
- 4 Import and Export trade; and
- 5 Such other trade as may from time to time be specified by the Chief Commissioner.

(h) 'Prescribed fee' in respect of any document or act means the fee payable thereon or therefore under rule 11;

(i) 'Regulation' means the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation No. 3 of 1956);

(j) 'Section' and 'sub-section' respectively mean a section of the Regulation and a sub-section of a section of the Regulation; and

(k) 'Year' means a financial year.

CHAPTER II: PASSES

3 Period for which pass may be granted or renewed

A pass under section 7 may be granted for a period of one year or a part thereof and may, subject to the provisions of these rules, be renewed for a further period not exceeding one year.

4 Application for pass

An application for the grant of a pass shall be made in Form 'A'.

5 Grant or renewal of pass

(1) On an application filed under rule 4, if the Deputy Commissioner, after such enquiry as he may deem fit to make, does not reject the application, he may, subject to the provisions of these rules, grant a pass to the applicant in Form 'B' for any period expiring on a date within the current financial year.

(2) A pass granted under sub-rule (1), may on an application being made in Form 'D' to the Deputy Commissioner, be renewed by him for a period permitted under rule 3.

6 Register of passes

A register of passes granted or renewed under rule 5, shall be maintained by the Deputy Commissioner in Form 'C' and an extract therefrom containing the details of passes so granted or renewed during a calendar month shall after the close of such month, be sent by him to the Chief Commissioner.

CHAPTER III: LICENCES FOR TRADE OR BUSINESS

7 Application for licence

Every application for grant of a licence shall be in Form 'E' ²[or in Form 'G' as the case may be].

8 Grant of licence

On an application filed under rule 7, if the Chief Commissioner, after such enquiry as he may deem fit to make, does not reject the application, he may, subject to the provisions of these rules, grant a licence for a period not exceeding one year.

9 Form of licence

Every licence granted under rule 8 shall be in Form 'F' ²[or in Form 'H'].

10 Register of licences

A register of licences granted under rule 8 shall be caused to be maintained by the Chief Commissioner in 'Form 'I'.

CHAPTER IV: MISCELLANEOUS

11 Fees for passes and licences

No pass or licence shall be granted unless the fee in respect thereof as indicated below has been paid to Government, namely:

Details of pass, etc	Rate of fee
(i) A Pass to be granted ⁴ [to a settler selected for settlement in Andaman and Nicobar islands under the Accelerated Development Programme of the Ministry of Labour, Employment and Rehabilitation (Dept. of Rehabilitation)] ⁵ [***]	⁶ [Nil]
⁷ [(ii) Subject to item (i) above, a pass to be granted for a period not exceeding one month.	Re. 1/-]
(iii) A pass other than a pass specified at item (i) or item (ii) above.	Rs. 5/-
(iv) Renewal of a pass	The same fee as for the original grant of pass.
(v) A licence ⁸ [for general trade or business]	Rs. 500/-
⁸ [(vi) A licence for miscellaneous trade	Rs. 500/-]

12 Purchase of local produce in reserved areas by licensee

- (i) A licensee ⁹[holding a licence in form 'F'] shall be authorised to purchase the various items of local produce from the aboriginal tribes of the reserved area for which he holds a licence.
- (ii) The extent to which, and the minimum rates at which, the various items of such produce may be purchased by a licensee shall be fixed by the Chief Commissioner from time to time.

13 Royalty payable to government on local produce exported from reserved areas

- (i) On all local produce purchased under rule 12 and exported from a reserved area, a royalty at such rate or rates as may be fixed by the Chief Commissioner from time to time shall be levied.
- (ii) The royalty levied under sub-rule (1) above shall be paid by the licensee to the Deputy Commissioner or to such other officers as may be appointed by the Deputy Commissioner in this behalf and shall be credited to Government.

14 Residual matters

Such matters as are not specifically provided for or are insufficiently provided for in these rules shall be regulated in such manner as may be directed by the Chief Commissioner:

- 1 Substituted vide Notification No.274/60/150-5/60-G dated 5th December 1960
- 2 Inserted vide Notification No.274/60/150-5/60-G dated 5th December 1960.
- 3 Substituted vide Notification No.274/60/150-5/60-G dated 5th December 1960 for "Form G".
- 4 Inserted vide Notification No. 61/69/F.No. 50-8/68-J(1) dated 31st May 1969.
- 5 The words 'for a period not exceeding one month' substituted vide Notification No. 274/60/150-5/60-G dated 5th December 1960 for 'to a Government servant while on duty or to a Government servant (and any member of his family) while proceeding on transfer' and later omitted vide Notification No. 61/69/F.No. 50-8/68-J(1) dated 31st May 1969.
- 6 Substituted vide Notification No. 61/69/F.No. 50-8/68-J(1) dated 31st May 1969 for 'Re.1/-' which was Substituted vide Notification No. 274/60/150-5/60-G dated 5th December 1960 for 'Nil'.
- 7 Omitted vide Notification No. 274/60/150-5/60-G dated 5th December 1960 and later inserted vide Notification No. 61/69/F.No. 50-8/68-J(1) dated 31st May 1969.
- 8 Inserted vide Notification No. 274/60/150-5/60-G dated 5th December 1960.
- 9 Substituted vide Notification No. 274/60/150-5/60-G dated 5th December 1960 for 'holding licence in form 'F''

SCHEDULE

FORM A

(See Rule 4)

Application for the grant of a pass under Section 7 of the Andaman & Nicobar Islands (Protection of Aboriginal Tribes), Regulation 1956

To,

*The Deputy Commissioner,
Andaman & Nicobar Islands,*

I, (name of the applicant), hereby apply for a pass under section 7 of the Andaman And Nicobar Islands (Protection Of Aboriginal Tribes) Regulation, 1956 and the rules made thereunder authorizing me to enter and remain in the following reserved area in the Andaman And Nicobar Islands for the period commencing from and ending on namely:

(Details of the Reserved Area)

2 *The required particulars are as follows:*

- (a) Applicant's father's or husband's name _____
- (b) Applicant's nationality _____
- (c) Applicant's height _____ feet _____ inches
- (d) Colour of applicant's hair _____
- (e) Colour of applicant's eyes _____
- (f) Distinguishing marks _____
- (g) Applicant's address _____

- (h) Purpose of visit to the Reserved Area _____
- (i) Details of employment proposed to be taken up in the Reserved Area
and the name of the employer, if any _____
- (j) No. of pass previously held, if any _____
- (k) Details of any other kind of applicant's interest, if any, in the Reserved Area
authorized under the Andaman and Nicobar Islands (Protection Of Aboriginal Tribes) Regulation,
1956 or the rules made there-under _____
- (l) Has the applicant ever been convicted of an offence under the Andaman and Nicobar Islands
(Protection Of Aboriginal Tribes) Regulation, 1956 or any other law, and if so, the details of the
offence and the punishment awarded? _____
- (m) Any other particulars _____

3 *I agree to abide by the provisions of the Andaman And Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 and the rules made thereunder and also by the terms and conditions of the pass, if granted.*

Dated at

Signature of applicant

the day of 19.....

FORM B

(See Rule 5)

Pass for entering a Reserved Area in the Andaman & Nicobar Islands

Pass No

2 This Pass under section 7 of the Andaman And Nicobar Islands (Protection of Aboriginal Tribes Regulation, 1956 (herein-after referred to as 'the Regulation') is hereby granted to Shri/Shrimati/Kumari..... (hereinafter referred to as 'the pass holder') identifiable by the following particulars, namely:

- | | |
|-----------------------------------|-------------------------|
| (a) Father's or husband's name | _____ |
| (b) Nationality | _____ |
| (c) Height | _____ feet _____ inches |
| (d) Colour of hair | _____ |
| (e) Colour of eyes | _____ |
| (f) Distinguishing marks | _____ |
| (g) Address | _____ |
| (h) Signature or thumb impression | _____ |

Subject to the provisions of the Regulation and the Andaman And Nicobar Islands (Protection of Aboriginal Tribes) Rules 1957 (hereinafter referred to as 'the said Rules') and also to the conditions set forth in the following statement, this PASS authorizing the pass holder to enter and remain in* _____ (hereinafter referred to as 'the said reserved area'), shall be valid and remain in force from _____ to _____, namely: _____

STATEMENT OF CONDITIONS

- 1** The pass-holder may visit the said reserved area and remain therein during the period of validity of this PASS for the following purpose shall, after the expiry of such period, surrender this PASS to the Officer-in-Charge of the nearest police station or to the nearest Magistrate and, if this PASS is lost, a report of such loss shall be made by the pass-holder forthwith to the said Officer-in-Charge or the said Magistrate, namely: _____
- 2** The pass-holder shall not carry on or engage himself in any trade or business in the said reserved area except to the extent, if any, authorized by this PASS.
- 3** The pass-holder shall not collect any forest produce from the said reserved area, and shall not carry to or from the said reserved area any book, diary, manuscript, map, picture, photograph, film, curio or article of scientific interest, which is likely to be against public interest or may affect the security of the State.
- 4.** The pass-holder shall not introduce or attempt to introduce into the said reserved area any of the following articles, namely:
 - (i) beer, wine or other spirituous fermented liquor;
 - (ii) opium, Bhang, ganja or other hurtful or intoxicating drug ;
 - (iii) arms, weapons gun powder, or other explosive or highly inflammable substance except to the extent permitted by the Chief Commissioner of the Andaman And Nicobar Islands (hereinafter referred to as 'the Chief Commissioner') or by any law for the time being in force; and
 - (iv) such other articles may be prohibited by the Chief Commissioner from time to time.
- 5.** The PASS shall be liable to be cancelled if the pass-holder is convicted of an offence punishable under the provisions of the Regulation or the said rules or any other law for the time being in force or is shown to the satisfaction of the Chief Commissioner to be leading a scandalous or notoriously evil mode of life conducive to breach of the public peace or prejudicial to the maintenance of the public safety in the said reserved area.
- 6.** The Deputy Commissioner may, and shall when so required by the Chief Commissioner, at any time after recording his reasons in writing but without assigning to the pass-holder any reasons for so doing, by order in writing cancel this PASS. The PASS shall be void from the date of receipt by such order by the pass-holder: Provided that where this PASS is so cancelled by the Deputy Commissioner; he shall forthwith send a copy of his recorded reasons for doing so to the Chief Commissioner and the Chief

Commissioner may, on his own motion or on application by the pass-holder or otherwise reverse the order of the Deputy Commissioner and thereupon the PASS shall come again into force and be valid.

- 7.** Any breach of the provisions of the Regulation or the said Rules or of the conditions for this PASS, shall, in addition to nay other penalty, render the pass-holder disqualified for being granted any pass under section 7 of the Regulation.

Dated at

theday of.....19.....

*Deputy Commissioner
Andaman & Nicobar Islands*

* Details of the reserved area for which PASS has been granted

RENEWALS

This PASS is hereby renewed and rendered valid under rule 5 (2) of the Andaman and Nicobar Islands (Protection Of Aboriginal Tribes) Rules 1957 for the period:

1 Commencing from _____ and ending on _____

*Deputy Commissioner
Andaman & Nicobar Islands*

2 Commencing from _____ and ending on _____

*Deputy Commissioner
Andaman & Nicobar Islands*

3 Commencing from _____ and ending on _____

*Deputy Commissioner
Andaman & Nicobar Islands*

FORM C*(See Rule 6)***Register of passes granted under Section 7 of the Andaman & Nicobar Islands
(Protection of Aboriginal Tribes) Regulation 1956**

I * Number of pass.	
2	Pass holder's name, father's name and address.
3	Nationality.
4	Height.
5	Colour of hair.
6	Colour of eyes.
7	Distinguishing marks.
8	Signature or thumb impression.
9	Description of the reserved area for which the pass has been granted.
10	Purpose of visit to the reserved area.
11	Date of grant of pass.
12	Date upto which pass has been granted.
13	Challan No and date of payment of prescribed fee for
14	Date of renewal of pass.
15	Date upto which pass has been renewed.
16	Challan No and date of payment of prescribed fee for renewal of pass.
17	Name of the person, if any with whom the Pass holder is employed in the reserved area
18	Remarks

P
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* Each pass shall be given a separate number serially

FORM D*(See Rule 5(2))*

**Application under Rule 5(2) of the Andaman & Nicobar Islands
(Protection of Aboriginal Tribes) Rules, 1957 for the renewal of Pass
for entry into the Reserved Area**

To

*The Deputy Commissioner
Andaman & Nicobar Islands*

I, _____ (name of the applicant), was granted Pass No _____
authorizing me to enter the following reserved area in the Andaman and Nicobar Islands and to remain therein from the period
commencing from _____ and ending on _____, namely;

1 (Details of the Reserved Area)

2 The aforesaid pass was renewed from time to time and rendered valid up to the _____. As the
pass since expired, I hereby apply for its renewal, on the same terms and conditions, for further period commencing from the
_____ and ending _____ on the _____. The required particulars are as follows:

- (a) No. of the *expired/ expiring pass _____
- (b) Date of grant of the *expired/ expiring pass _____
- (c) Date of last renewal, if any, of the *expired/ expiring pass _____
- (d) Names and addresses of the persons by under whom the applicant was employed
or engaged in the reserved area during the last period _____
- (e) Name and address of the person by or under whom the applicant was employed
or engaged in the reserved area at the close of the last period _____
- (f) Name and address of the person by or under whom the applicant was proposed to be employed or
engaged during the period for which the pass is to be renewed _____
- (g) Has the applicant been convicted of any offence during the last year and, if so,
the details of the offence and the punishment awarded? _____
- (h) Present address of the applicant _____

3 The *expired/expiring pass is attached herewith.

Dated the19.....

Signature of applicant

N.B. The expired/expiring pass must accompany the application.

** Strike out the portion not applicable.*

FORM E*(See Rule 7)*

Application for the grant of a license for trade or business under sub-section 1 of Section 6 of the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956

To

*The Chief Commissioner,
Andaman & Nicobar Islands, Port Blair*

I, _____ (name of the applicant), hereby apply for a license under sub-section (1) of section 6 of the Andaman and Nicobar Islands (Protection Of Aboriginal Tribes) Regulation 1956 and the rules made there under authorising me to carry on trade or business in the following reserved area in the Andaman and Nicobar Islands for the period commencing from _____ and ending on _____ namely:

(DETAILS OF THE RESERVED AREA)

2 *The required particulars are as follows:*

- (a) Applicant's father's or husband's name _____
- (b) Applicant's nationality _____
- (c) Applicant's address _____
- (d) Whether the license is desired in applicant's individual name or in the name of any firm, company, etc _____
- (e) If the license be desired in the name of any firm, company, etc the name and style in which the firm, company, etc, carries on business and the details of its constitution including the names, etc, of its partners if it be a partnership firm _____
- (f) Details of resources which are to be employed in connection with the trade or business _____
- (g) Details of water-crafts and transport vehicles, if any proposed to be employed in connection with the trade or business _____
- (h) Name of the station at which a sea-worthy boat shall be kept for the purpose of carriage or transport the Government cargo and officials under the terms and conditions of the license if granted _____
- (i) Does the applicant or the firm, company, etc, in whose name the license is desired, hold any such license in relation to any other such reserved area? _____
- (j) Has the applicant or the firm, company, etc, in whose name the license is desired been refused such a license previously, and, if so, the date of such refusal? _____
- (k) Has the applicant or the firm, company, etc in whose name the license is desired, ever been convicted of an offence under the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 or any other law, and, if so the details of the offence and the punishment awarded? _____
- (l) Any other particulars _____

3 *I, [and also the firm, company, etc, in whose name the license is desired] agree to abide by the provisions of the Andaman & Nicobar Islands (Protection Of Aboriginal Tribes), Regulation 1956 and the rules made thereunder and also by the terms and conditions of the license, if granted.*

Dated at

*Signature of applicant and/or the authorized person
on behalf of the firm, company, etc, together with authorised seal*

the day of 19.....

[] Strike out if not applicable

FORM F*(See Rule 9)***License for trade or business granted under sub-section 1 of Section 6 of the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956***Non transferable*

License No. _____

This LICENSE is hereby granted under sub-section 1 of Section 6 of the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (hereinafter referred to as 'the said Regulation') to Shri/Messrs. _____ Son of _____ resident of _____ (hereinafter referred to as 'the licensee') authorising him/them to carry on trade or business in the reserved area hereinafter fully described for the period commencing from _____ and ending on _____ (hereinafter referred to as 'the term of this LICENSE') subject to the provisions of the said Regulation and the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Rules, 1957 (hereinafter referred to as 'the said Rules') and also subject to the terms and conditions set forth in the following statement namely:

STATEMENT OF TERMS AND CONDITIONS

- 1 The licensee shall be authorized to carry on trade or business in the following reserved area in the Andaman and Nicobar Islands (hereinafter referred to as 'the said reserved area') namely: _____
- 2 During the term of this LICENSE, the licensee shall:
 - (a) maintain an efficient system of procurement, supply and distribution of cloth consumers' goods and other articles described in the Annexure hereunder written (such cloth, goods and articles hereinafter collectively referred to as 'the authorized articles') in the said reserved area;
 - (b) handle things and properties belonging to Government in such manner and on such terms, conditions and stipulations as may be mutually agreed between the licensee and the Chief Commissioner of the Andaman and Nicobar Islands (hereinafter called 'the Chief Commissioner');
 - (c) work as the stevedorer for Government cargo in the said reserved area and to provide sufficient labour and other efficient facilities for loading, unloading and stacking of such cargo on payment by Government of such rates or charges as may from time to time be fixed by the Chief Commissioner;
 - (d) keep maintain and station at own cost and risk a sea-worthy boat at _____ and to make her available at the purpose of:
 - (i) carriage or transport of Government cargo by sea to _____ on payment of such rate or rates of freight as may from time to time be fixed by the Chief Commissioner; and
 - (ii) enabling Government to visit _____ on payment of such rate or rates of passage as may from time to time be fixed by the Chief Commissioner.
 - (e) perform such other functions and discharge such other obligations as may hereunder devolve on the licensee; and
 - (f) perform such other reasonable function or functions as may, with the consent of the licensee, be entrusted to him by the Chief Commissioner.
- 3 For the purpose of maintaining as efficient system of supply and distribution of the authorized articles in the said reserved area, the licensee shall at his own cost and risk, procure and hold sufficient stock of all the authorized articles at such places in the said reserved area as may be conveniently accessible to the local civil population; PROVIDED that the licensee shall be required to procure and hold at its own cost and risk such minimum and maximum stock of all or any of the authorised articles at such place or places in the said reserved area as may, at any time be fixed by the Chief Commissioner or by such Officer as may be authorized by the Chief Commissioner in this behalf.
- 4 The maximum price at which any of the authorized articles may be sold by the licensee in said reserved area shall be fixed from time to time by the Chief Commissioner or by such Officer as may be appointed by the Chief Commissioner in this behalf. PROVIDED that no maximum price so fixed in respect of any authorized articles shall exceed the amount of cost price at which such article was purchased in wholesale at Port Blair or at any such place in India, as the case may be, added by such percentage of the amount of such cost price as has been expressed to be permitted as the margin of profit in the Annexure hereunder written,

- 5 (1) The Chief Commissioner may, from time to time, fix the rates at which the licensee shall be authorized to purchase the various items of local produce from the aboriginal tribes of the said reserved area and, until some other rates are so fixed by the Chief Commissioner, the licensee shall be authorized to purchase any of the commodities specified in column (1) of the following Table from the aboriginal tribes of the said reserved area at a rate not less than the minimum purchase – rate specified there against in column (2) of the said Table, that is to say:

Table of purchase rates

Name of the commodity (1)	Minimum *Purchase-rate (2)
Coconuts	
Hukka nuts	
Copra	
Betel nuts	
Silk-cotton	

- (2) On every item of local produce purchased from the aboriginal tribes of the said reserved area and exported therefrom to any place outside the said reserved area, the licensee shall pay royalty to the Government at such rates as may from time to time be fixed by the Chief Commissioner and until some other rates are so fixed by the Chief Commissioner the royalty payable by the licensee to Government on each of the commodities specified in column (1) of the following Table shall be at the rate specified there against in column (2) of the said Table, that is to say:

Name of the commodity (1)	*Rate of royalty (2)
Coconuts	
Hukka nuts	
Copra	
Betel nuts	
Silk-cotton	

* The current rates which are in force for the time being should be entered in this column.

- 6 During the term of this LICENSE, the licensee shall perform the functions and discharge the obligations on his part most efficiently, faithfully and promptly to the best advantage of the Government and with the same degree of economy, prudence, diligence, skill and judgement as the licensee would exercise if the licensee were entitled to the benefits arising or likely to arise out of the performance of such functions and discharge of such obligations, and generally in accordance with the instructions and to the satisfaction of the Chief Commissioner which might involve the carrying out, without any extra payment, of such subsidiary instructions as the Chief Commissioner may from time to time issue.
- 7 In no event and under no circumstances, the licensee shall assign, transfer, sublet or underlet any of his interests, benefits, titles, rights, covenants, obligations or any other form of interests or liability whatsoever arising from or incidental to this LICENSE or any part thereof and in particular the licensee shall not appoint any person, firm, society, association or company as a sub licensee or sub agent or in any other capacity purporting to act on behalf of, or in name of, Government or of the licensee; and all transactions between the licensee and a third party shall be carried out as between two principals without any recourse in any event to Government or to the Chief Commissioner.
- 8 For the proper and efficient performance and discharge of the functions and obligations on his part of the LICENSE, the licensee shall, at his own risk and expense, provide everything that is necessary including proper establishment and in particular the licensee shall, at his own expense and risk:

- (a) appoint a fully qualified and experienced person to be the General Manager to supervise the shops established by the licensee in the said reserved area and the appointment of such person shall be made with the previous approval of the Chief Commissioner;
- (b) appoint General supervisory and other staff for such shops as well as for storage, godown and transport;
- (c) appoint clerical staff competent to carry out business correspondence and to keep proper record and account of all transactions carried out by the licensee ; and
- (d) employ labour for the purpose of loading, unloading, stacking, distribution and generally for all purpose connected with the functions and obligations on the part of the licensee under this LICENSE:

PROVIDED that the establishment and labour appointed under this clause shall be adequate to carry put the appropriate duties required of them and that in making such appointments the licensee may without prejudice to the terms and conditions of this LICENSE, employ the aboriginal tribes of the said reserved area to such extent as may be feasible.

PROVIDED ALSO that no person who does not hold a valid pass granted under section 7 of the said Regulation, or to whose appointment the Chief Commissioner may take exception, shall be employed by the licensee in his establishment or labour, and if any such exception is taken by the Chief Commissioner in the case of a person already employed under the licensee, such person shall be removed from such employment forthwith.

PROVIDED further that all persons appointed in the establishment or labour of the licensee shall, for all purposes and in all respects, be the servants of the licensee who shall accept full responsibility as their employer and pay fair wages having regard to the rates of wages prevailing in the said reserved area and that the licensee hereby indemnifies Government and the Chief Commissioner against all claims of any kind whatsoever in respect of the persons appointed as aforesaid or otherwise arising out of the working of this LICENSE.

- 9 Such building accommodation, electric fittings including lights, fans, etc., office and shop furniture and equipments, fire and other appliances, boats, launches and other things and materials necessary for the efficient performance and discharge of the functions and obligations on the part of the licensee under this LICENSE, shall be arranged and procured by the licensee himself at his own cost and risk.
- 10 (1) The licensee shall maintain or cause to be maintained the correct and true accounts of all transactions and dealings in relation to his business under the terms and conditions of this LICENSE and the accounts so maintained or caused to be maintained shall among other things, clearly show the details of all moneys received and paid, all authorized articles procured and sold in the said reserved area, the prices at which such articles were so procured and sold, all transactions carried out by the licensee with the inhabitants of the said reserved area and with Government and all other matters which may be necessary to manifest the state of business affairs of the licensee under this LICENSE or which may be specified by the Chief Commissioner.
- (2) All books of accounts maintained or caused to be maintained by the licensee under sub clause(1) shall be kept in the licensee's office at _____ and shall on demand, be made available at all reasonable times, to the Chief Commissioner or to such Officer of Government as may be authorized by the Chief Commissioner in this behalf for the purpose of inspection, examination, copying, fixation of prices, audit or any other reason-able purpose.
- (3) The licensee shall duly account for all Government properties in his possession and shall submit such periodical and other reports as to the state of such properties and other matters connected with this LICENSE as may from time to time be required by the Chief Commissioner.
- 11 (1) The licensee may, at his own expense, insure all or any of the authorized articles and other things, goods or materials procured by him under the terms and condions and of this LICENSE, in order to cover any risk during the transit of such articles, things, goods or materials to the said reserved area or their storage or otherwise and Government undertakes no responsibility or liability for loss or damage to such articles things, goods or materials or to any other property of the licensee in any manner or under any circumstances whatsoever.
- (2) Where any articles, things, goods or materials or any other property belonging to Government is held or handled by the licensee on behalf of Government, the licensee shall be responsible and liable for any loss or damage to such articles, things, goods, materials or property and shall always be deemed to have indemnified Government against such loss or damage.
- 12 (1) Notwithstanding anything hereinbefore contained, this LICENSE shall, at the option of the Chief Commissioner, be liable to cancellation forthwith in each and every of the following events, that is to say:
 - (a) If the licensee commits any breach of any of the provisions of the said Regulation or of the said Rules or any of the terms and conditions of this LICENSE or of any of the provisions herein contained.
 - (b) If the licensee fails to perform any of the functions or discharge any of the obligations on his part under this LICENSE.
 - (c) If the licensee becomes insolvent.
 - (d) If the licensee ceases to exist as a trading concern in its existing formation on account of dissolution or liquidation or otherwise on account of an order passed by any competent Government authority on any competent Court.
- (2) Where this LICENSE is cancelled under sub clause (1), the Chief Commissioner shall, without prejudice to his other rights and powers herein contained be entitled and have full power to take over, at his discretion any of the authorized articles in possession of the licensee and to dispose them at the risk and expense of the licensee and realize Government's claims from the procedure and also from the moneys due to the licensee on account of any transaction with Government under this LICENSE or any other agreement or understanding with Government.

- 13** Without prejudice to the provisions of clause 12, the Chief Commissioner may, at any time without advancing any reasons, cancel this LICENSE by delivering a notice of such cancellation in writing to the licensee at least two months in advance of the date on which such cancellation is intended by the Chief Commissioner to take effect.
PROVIDED that the licensee shall also be entitled and have full power to surrender this LICENSE at any time during its continuance by delivering a notice of such surrender in writing to the Chief Commissioner at least two months in advance of the date on which such surrender is intended by the licensee to take effect.
- 14** Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the licensee to any officer, servant or representative of Government in relation to the grant of this LICENSE shall, in addition to any criminal liability incurred by the licensee render this LICENSE liable to cancellation in the discretion of the Chief Commissioner and any loss or damage resulting to Government on account of such cancellation shall be compensated by the licensee.
- 15** Where this LICENSE is intended to be cancelled by the Chief Commissioner and a notice of intimation of such intention has been given to the licensee by the Chief Commissioner, the licensee shall wind up his business, interests, liabilities and affairs in or in relation to or in respect of the said reserved area and settle all the claims of Government and third parties before the date on which such cancellation is to take effect and in particular the licensee shall, if required by the Chief Commissioner, deliver the stock of the authorized articles and other things, goods and materials procured by him in the said reserved area to Government on payment of fair and reasonable prices therefore by Government. PROVIDED that the provisions of this clause shall, in effect, be in addition to and not in derogation of any of the other provisions herein contained.
PROVIDED ALSO that in the context of any consequences ensuing from the operation of the provisions of this clause, the licensee shall always be deemed to have indemnified Government against any loss or damage to the interests of the licensee or of any other person or party having any dealings with the license.
- 16** In the event of cancellation of this LICENSE before the expiry of the period of its validity ending on the term of this LICENSE shall, notwithstanding anything herein contained expire on the date on which such cancellation is to take effect and all references herein to 'the term of this LICENSE' shall be construed as reference to the term so expiring on such date.
- 17** The licensee shall, within seven days from the date of grant of this LICENSE, deposit with the Government a sum of Rs.6000/- (Rupees six thousand) as security for the due performance of the functions and discharge of obligations on his part under this LICENSE and for strict observance of the terms and conditions of this LICENSE, and the sum so deposited shall, during the continuance of the term of this LICENSE, be retained by Government as security as aforesaid without any liability on its part to pay any interest thereon to the licensee and shall, on expiry of the said term, be refunded to the licensee on presentation by him of a "No Demand" certificate and return in good condition of Government properties issued or entrusted to him ;
PROVIDED that in the event of any default or failure on the part of the licensee in the performance of such functions or discharge of such obligations or in the observance of such terms and conditions, the sum so deposited or any part thereof shall, in the discretion of the Chief Commissioner, be liable to be forfeited by the Government without prejudice to any other rights, titles or remedies enforceable by Government on account of such default or failure.
- 18** No default, failure or omission in the observance of any of the terms or conditions of this LICENSE or in the performance or discharge of any of the functions or obligations arising therefrom, shall give rise to any claim against the licensee or be deemed to be a breach of this LICENSE if such default, failure or omission, as the case may be, has occurred as a result of any force majeure such as political or administrative acts of recognized or de facto foreign States, act of God, act of enemies of the Republic of India, strikes, lock-outs, epidemics, frosts, accidents by fire or inundation or at sea, eruptions, earthquakes, landslips, etc.
- 19** Such matters are not expressly provided in this LICENSE but determination whereby may be necessary in the course of performance of the functions or discharge of the obligations, shall be regulated in accordance with the directions or instructions of the Chief Commissioner and the licensee shall have no title, right or power to question such directions or instructions which shall be binding on Government and also on the licensee.
- 20** Provisions of this LICENSE shall also be subject to such laws as are for the time being in force in the Andaman and Nicobar Islands or as be enacted hereafter by any competent authority.
- 21** If any dispute, differences or question, shall, at any time hereafter, arise between the licensee and the Government or the persons claiming under them respectively on account of the breach or on observance of any of the covenants, terms, conditions, stipulations or agreements herein contained or otherwise attaching or in any way relating to the construction meaning and effect of this LICENSE or any clause or thing herein rights, titles, powers, duties, obligations or liabilities of the licensee and Government respectively except and excluding, however, disputes, differences or questions, the decision whereof is otherwise expressly provided for in this LICENSE, such dispute difference or question, as the case may be, shall be referred to the arbitration of an arbitrator nominated by the Chief Commissioner and the decision of such arbitrator shall be final and binding on the parties hereto:

PROVIDED that the provisions of the Arbitration Act, 1940 and of every statutory modification or re-enactment thereof and also of the rules made thereunder from time to time, shall apply to such arbitration and this deed shall be deemed to be a submission to arbitration.

PROVIDED ALSO that upon such reference to arbitration, the licensee shall, as far as reasonably possible, continue to comply with the terms and conditions of this LICENSE during the arbitration, proceedings, and no payment due or payable by or to the Government shall be withheld on account of such proceedings unless such payment is the subject-matter of arbitration.

Annexure above referred to

Serial No	Name of the article authorized for Procurement, supply, distribution, and sale in the reserved area	Margin of profit over the cost price permitted in fixing the selling price in case the article was purchased by the licensee at Port Blair	Margin of profit over the cost price permitted in fixing the selling price in case the article was purchased by the licensee at any place in India except Port Blair
I	II	III	IV
1	Rice, Wheat and wheat products purchased from open market.	9 ¾ %	25 %
2	Rice, Wheat and wheat products purchased from Government Stores.	As may be fixed by the Chief Commissioner from time to time.	As may be fixed by the Chief Commissioner from time to time.
3	Fresh fruits and vegetables including onions and potatoes.	24 ¾ %.	40 %
4	Foodstuffs other than those specified at Serial Nos. 1, 2 and 3	9 ¾ %	25 %
5	Cloth and ready-made clothes.	9 ¾ %	25 %
6	Tobacco, Cigarettes and Matches.	9 ¾ %	25 %
7	Soap	9 ¾ %	25 %
8	Kerosene oil.	9 %	25 %
9	Oilman's and Grocer's stores excluding every kinds of alcoholic preparations and other articles prohibited by the Chief Commissioner from time to time.	9 %	25 %
10	General merchandise (subject to such exceptions as the Chief Commissioner may, from time to Time, make).	9 %	25 %
11	Stationery.	9 %	25 %
12	Cutlery and Utensils.	9 %	25 %
13	Medicinal drugs and chemicals.	9 %	25 %
14	Bicycles.	9 %	25 %
15	Sewing Machines.	9 %	25 %
16	Watches.	9 %	25 %
17	Such other articles as may from time to time be authorized by the Chief Commissioner.	As may be fixed by the Chief Commissioner from time to time.	As may be fixed by the Chief Commissioner from time to time.

NOTE: In fixing the selling price of an article purchased by the licensees at Port Blair, such amount on account of freight and incidental expenditures as may, from time to time, be fixed by the Chief Commissioner, shall be permitted in addition to this margin of profit specified in column III.

Dated at Port Blair

theday of.....19.....

*Chief Commissioner
Andaman & Nicobar Islands*

FORM G

(See Rule 10)

Register of licenses for trade or business granted under sub-section 6 of the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956

	1	* Number of license.
	2	Licensee's name, father's name, nationality and address. (Other details in the case of a firm, company, etc.)
	3	Details of the reserved area for which the license has been granted.
	4	Registered Nos and description of boats and sea worthy boats used, employed or engaged by the licensee in carrying on trade or business.
	5	Date of grant of license.
	6	Period for which the license has been granted.
	7	Challan No and date of payment of the prescribed fee for the grant of license.
	8	Amount of security deposit, if any
	9	Challan No & date of deposit of security, if any
	10	Date of refund of security, if any.
	11	Date on which license ceased to be valid.
	12	Whether license ceased to be valid on account of normal expiry or non payment of Government dues or cancellation or otherwise.
	13	Remarks

* Each license shall be given a separate number serially.

*T.G.N. AYYAR
Chief Commissioner, A & N Islands
[F 1-89 (1) / 56-G]
G, P, 53/57*

*Office of the Chief Commissioner
Andaman & Nicobar Islands
Dated at Port Blair, 6th May 57*

NOTIFICATION

No 64-57: Under Rule 14 of the Andaman and Nicobar Islands (Protection Of Aboriginal Tribes), Rules 1957, the Chief Commissioner, Andaman and Nicobar Islands, is pleased to direct that all licenses granted under sub section 1 of section 6 of the Andaman and Nicobar Islands (Protection Of Aboriginal Tribes) Regulation, 1956 before the commencement of the said Rules shall, until any correspondence provision is made under the said Rules, continue to be in force and valid subject to the terms and conditions of the said licenses.

*T.G.N. AYYAR
Chief Commissioner
Andaman and Nicobar Islands
[1-89 (1), 56-G]*

No. 1-89/ 56: GII Port Blair, the 6th May 1957

Copy forwarded to the Foreman, Government Press, Port Blair, with the request that the above notification may please be published in the Andaman and Nicobar Islands Gazette forthwith. Advance copy forwarded for information to the Chief Conservator of Forests, Andaman and Nicobar Islands, and all Heads of local Offices including the Executive Engineer (Development Division).

*By order
Sd/ Assistant Secretary to the Chief Commissioner*

*Office of the Chief Commissioner
Andaman & Nicobar Islands
Dated at Port Blair, 6th May 57*

NOTIFICATION

No AN/PATR/9(1)/1: In exercise to the powers conferred by sub-section (1) of section 9 of the Andaman and Nicobar Islands (Protection Of Aboriginal Tribes), Regulation 1956 (Regulation No.3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands is pleased to authorize any of the following officers to arrest without a warrant, any person who has committed, or is suspected of having committed, any offence punishable under the said Regulation, namely:

- (i) All police above the rank of a Constable
- (ii) All members of the Bush Police Force under the administrative control of the Police and Forest Department of the Andaman & Nicobar Islands
- (iii) All officers of the Forest Department of the Andaman and Nicobar Islands

*T.G.N. AYYAR
Chief Commissioner
Andaman and Nicobar Islands
[1-89 (1)/, 56-G]*

No. 1-89/ 56: GIII Port Blair, the 6th May 1957

Copy forwarded to the Foreman, Government Press, Port Blair, with the request that the above notification may please be published in the Andaman and Nicobar Islands Gazette forthwith. Advance copy forwarded for information to the Chief Conservator of Forests, Andaman and Nicobar Islands, and all Heads of local Offices including the Executive Engineer (Development Division).

*By order
Sd/ Assistant Secretary to the Chief Commissioner*

Andaman & Nicobar Administration
Chief Commissioner's Secreteriat

NOTIFICATION

Port Blair, the 5th December 1960/ 14th Agrahayana 1882

No. 274/60/150-5/60-G: In exercise of the powers conferred by section 10 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes), Regulation 1956 (Regulation No. 3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands, is pleased to direct that the following amendments shall be made in the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Rules, 1957.

AMENDMENTS

For the existing Rule 2 of the said Rules, the following shall be substituted, viz:

2 DEFINITIONS: In these Rules, unless the context otherwise requires.

- (a) 'Deputy Commissioner' except in sub rule (2) of rule 13 includes an officer authorized by him under Section 7 to grant passes;
- (b) 'Form' means a form prescribed in the Schedule appended to these rules;
- (c) 'General Trade or Business' means the trade or business covered by the licensee in Form F;
- (d) 'license' means a license granted in Form 'F' or in Form 'H' by the Chief Commissioner under Sub-section 1 of Section 6 to carry on in any reserved area general trade or business, or miscellaneous trade, as the case may be;
- (e) 'licensee' means a person, or a body of individuals including a member or members of an aboriginal tribe, to whom a license has been granted;
- (f) 'person' does not include a member of an aboriginal tribe;
- (g) 'Miscellaneous Trade' means the following:
 - (1) ks related to P.W.D. and I.A.F contracts;
 - (2) Stevedoring;
 - (3) Sale of timber;
 - (4) Import and Export trade, and;
 - (5) Such other trade as may from time to time be specified by the Chief Commissioner.
- (h) 'prescribed fee' in respect of any document or act means the fee payable thereon or therefore under rule 11;
- (i) 'Regulation' means the Andaman and Nicobar Islands (Protection of Aboriginal Tribes), Regulation 1956 (Regulation No.3 of 1956);
- (j) 'Section' and 'Sub-section' respectively mean a section of the Regulation and a sub-section of a section of the Regulation and;
- (k) 'r' means a financial year.

(2) For the existing Rule 7 of the said Rules, the following shall be substituted namely:

7 APPLICATION FOR LICENSE: Every application for grant of a license shall be in Form 'E' or Form 'G' as the case may be.

(3) In rule 9 of the said Rules for the words 'Shall be in Form "F"' substitute the words 'Shall be in Form "F" or Form "H"'.

(4) In the existing rule 10 of the said Rules for the words 'Form G' substitute the words 'Form I'.

(5) For the existing rule 11 of the said Rules, the following shall be substituted namely:

11 FEES FOR PASSES AND LICENSES: No pass or license shall be granted unless the fee in respect thereof as indicated below has been paid by the Government namely:

Details of pass, etc		Rate of fee
1	A pass to be granted for a period not exceeding one month	Re. 1/-
2	A pass other than a pass specified at item (1) above	Rs. 5/-
3	Renewal of pass	The same fee as for the original grant of a pass
4	A license for general trade or business	Rs. 500/-
5	A license for miscellaneous trade	Rs. 500/-

- (6) In sub rule 1 of rule 12 after the words 'the licensee' insert the words 'holding a license' in Form 'F'.
- (7) In Forms 'E' and 'F' appended to the said Rules for the words 'trade or business' wherever they occur substitute the words 'general trade or business'.
- (8) For the existing sub clause (c) of clause 2 of the statement of terms and conditions mentioned in Form 'F' appended to the said Rules substitute the following:
- C** (i) work as a stevedore for cargo in the said reserved area and the ports of Car Nicobar and Camorta and provide sufficient labour and other efficient facilities for loading, unloading and stacking of such cargo on payment of such rates or charges as may from time to time be fixed by the Chief Commissioner.
- (ii) provide necessary embarkation and disembarkation facilities to all passengers between the ships in anchorage and shore and vice versa in the said reserved area and at the ports of Car Nicobar and Camorta on payment on such rates or or charges as may from time to time be fixed by the Chief Commissioner.
- (9) The existing Form 'G' appended to the said Rules shall be deleted.
- (10) The enclosed Forms shall be appended to the said Rules as Forms 'G', 'H' & 'I'.

By Order,
BB Srivastava
Asst Secretary to the Chief Commissioner

Andaman & Nicobar Administration
Andaman & Nicobar Islands
Port Blair, the 1st December 1959

NOTIFICATION

No. AN PATR/3 (1) 1: In exercise of the powers conferred by sub section (1) of Section 3 of the Andaman and Nicobar Islands (Protection Of Aboriginal Tribes), Regulation 56 (Regulation No. 3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands, is pleased to direct that the following amendment shall be carried out to his Notification No. AN PATR/3 (1) 1 dated the 2nd April 1957 published in the *Andaman and Nicobar Extraordinary Gazette* No 3 of 2/4/57, namely:

Para (b) of the said notification shall be substituted by the following:

'The area in Middle Andaman to the west of an imaginary line emerging from South Andaman and proceeding towards Yeratiljig to Bush Police Post No. 4 (Maps reference 772425) and thence due west to the coast below point June (Map reference 625029) along the Bush Police line subject to an adjustment that the line may coincide with the alignment to be aligned by the Andaman and Nicobar Islands Forest Department in Porlob and Boroin Yol areas between the Yeratil/Charalungta Bush Police posts provided that sufficient land is left to the West of such alignment on the eastern side of the Range to provide enough hunting ground to Jarawas while they are on the move and bearing in mind the suitability of such alignment, from the point of view of water and terrain, as a patrol path.'

MV RAJWADE
Chief Commissioner, Andaman & Nicobar Islands
[F. 150/59-G]

No. 150/59-G: Port Blair, the 1st December 1959

Copy forwarded to the Foreman, Govt. Press, Port Blair, for publication of the notification in the forthcoming issue of the *Andaman and Nicobar Gazette*, 15 space copies of the printed notification may be supplied to the General Section, Chief Commissioner's office for official use. Advance copy forwarded to:

- 1 The Supdt. Of Police, Port Blair, with reference to his Memo No. 16698/38/19/59 dated the 4 November, '59.
- 2 The Chief Conservator Of Forests, Port Blair for information and necessary action.
- 3 The Deputy Commissioner, Port Blair for information.

Sd/-
Secretary to the Chief Commissioner

FORM G*(See Rule 7)*

**Application for the grant of a license for miscellaneous trade under
sub-section I of Section 6 of the Andaman & Nicobar Islands
(Protection of Aboriginal Tribes) Regulation, 1956**

To

*The Chief Commissioner,
Andaman & Nicobar Islands, Port Blair*

I, _____ (name of the applicant), hereby apply for a license under sub-section (1) of section 6 of the Andaman and Nicobar Islands (Protection Of Aboriginal Tribes) Regulation 1956 and the rules made there under authorising me to carry on miscellaneous trade in the following reserved area in the Andaman and Nicobar Islands for the period commencing from _____ and ending on _____ namely:

(DETAILS OF THE RESERVED AREA)

2 *The required particulars are as follows:*

- (a) Applicant's father's or husband's name _____
- (b) Applicant's nationality _____
- (c) Applicant's address _____
- (d) Whether the license is desired in applicant's individual name or in the name of any firm, company, etc _____
- (e) If the license be desired in the name of any firm, company, etc the name and style in which the firm, company, etc, carries on business and the details of its constitution including the names, etc, of its partners if it be a partnership firm _____
- (f) Details of resources which are to be employed in connection with the miscellaneous trade _____
- (g) Details of water-crafts and transport vehicles, if any proposed to be employed in connection with the miscellaneous trade _____
- (h) Name of the station at which a sea-worthy boat shall be kept for the purpose of carriage or transport the Government cargo and officials under the terms and conditions of the license if granted _____
- (i) Does the applicant or the firm, company, etc, in whose name the license is desired, hold any such license in relation to any other such reserved area? _____
- (j) Has the applicant or the firm, company, etc, in whose name the license is desired been refused such a license previously, and, if so, the date of such refusal? _____
- (k) Has the applicant or the firm, company, etc in whose name the license is desired, ever been convicted of an offence under the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 or any other law, and, if so the details of the offence and the punishment awarded? _____
- (l) Any other particulars _____

3 *I, [and also the firm, company, etc, in whose name the license is desired] agree to abide by the provisions of the Andaman & Nicobar Islands (Protection Of Aboriginal Tribes), Regulation 1956 and the rules made thereunder and also by the terms and conditions of the license, if granted.*

Dated at

*Signature of applicant and/or the authorized person
on behalf of the firm, company, etc, together with authorised seal*

the day of 19.....

[] Strike out if not applicable

FORM H*(See Rule 9)***License for miscellaneous trade granted under sub-section 1 of Section 6 of the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956***Non transferable*

License No. _____

This LICENSE is thereby granted under sub-section 1 of Section 6 of the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (hereinafter referred to as 'the said Regulation') to Shri/Messrs. _____ Son of _____ resident of _____ (hereinafter referred to as 'the licensee') authorising him/them to carry on trade or business in the reserved area hereinafter fully described for the period commencing from _____ and ending on _____ (hereinafter referred to as 'the term of this LICENSE') subject to the provisions of the said Regulation and the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Rules, 1957 (hereinafter referred to as 'the said Rules') and also subject to the terms and conditions set forth in the following statement namely:

STATEMENT OF TERMS AND CONDITIONS

- 1 The licensee shall be authorized to carry on miscellaneous trade in the following reserved area in the Andaman and Nicobar Islands (hereinafter referred to as 'the said reserved area') namely: _____
- 2 During the term of this LICENSE, the licensee shall:
 - (a) handle things and properties belonging to Government in such manner and on such terms, conditions and stipulations as may be mutually agreed between the licensee and the Chief Commissioner of the Andaman and Nicobar Islands (hereinafter called 'the Chief Commissioner');
 - (b) (i) work as a stevedore for cargo in the side reserved area and the ports of Car Nicobar and Camorta and provide sufficient labor and other efficient facilities for loading, unloading and stacking of such cargo on payment of such rates or charges as may from time to time be fixed by the Chief Commissioner;
 - (c) keep maintain and station at own cost and risk a sea-worthy boat at _____ and to make her available at the purpose of:
 - (i) carriage or transport of Government cargo by sea to _____ on payment of such rate or rates of freight as may from time to time be fixed by the Chief Commissioner; and
 - (ii) enabling Government to visit _____ on payment of such rate or rates of passage as may from time to time be fixed by the Chief Commissioner.
 - (d) perform such other functions and discharge such other obligations as may hereunder devolve on the licensee ; and
 - (e) perform such other reasonable function or functions as may, with the consent of the licensee, be entrusted to him by the Chief Commissioner.
- 3 During the term of this LICENSE, the licensee shall perform the functions and discharge the obligations on his part most efficiently, faithfully and promptly to the best advantages of Government and with the same degree of economy, prudence, diligence, skill and judgement as the licensee would exercise if the license were entitled to the benefits arising or likely to arise out of the performance of such functions or discharge of such obligations, and generally in accordance with the instructions and to the satisfaction of the Chief Commissioner which might involve the carrying out, without any extra payment, of such subsidiary instructions as the Chief Commissioner may from time to time issue.
- 4 In no event and under no circumstance, the licensee shall assign, transfer, sublet or underlet any of his interests, benefits, titles, rights, covenants, obligations or any other form or interests or liability whatsoever arising from or incidental to this LICENSE or any part thereof and in particular the licensee shall not appoint any person, firm, society, association or company as a sub-licensee or sub-agent or any other capacity purporting to act on behalf of or in the name of, Government or of the licensee, and all transactions without any recourse in any event to Government or to the Chief Commissioner.
- 5 For the proper and efficient performance and discharge of the functions and obligations on his part under the LICENSE, the licensee shall, at his own risk and expense provide everything that is necessary including proper establishment and in particular the licensee shall, at his own expense and risk:

- (a) appoint general supervisory and other staff to storage, godown and transport;
- (b) appoint clerical staff competent enough to carry out business correspondence and to keep proper record and account of all transactions carried out by the licensee; and
- (c) employ labour for the purpose of loading, unloading, stacking and generally for all purposes connected with the functions and obligations on the part of the licensee under this LICENSE :

PROVIDED that the establishment and labor appointed under the clause shall be adequate to carry out the appropriate duties required of them and that in making such appointments the licensee may, without prejudice to the terms and conditions of this LICENSE, employ the aboriginal tribes of the said reserved area to such extent as may be feasible.

PROVIDED ALSO that no person who does not hold a valid pass granted under Section 7 of the said Regulation, or to whose appointment the Chief Commissioner may take exception shall be employed by the licensee in his establishment or labour; and if any such exception is taken by the Chief Commissioner in the case of a person already employed under the licensee, such person shall be removed from such employment forthwith.

PROVIDED FURTHER that all persons appointed in the establishment of labour of the licensee shall, for all purposes and in all respects, be the servants of the licensee who shall accept full responsibility as their employer and pay fair wages having regard to the rates of wages prevailing in the said reserved area and that the licensee hereby indemnifies Government and the Chief Commissioner against all claims of any kind whatsoever in respect of the persons appointed as aforesaid or otherwise arising out of the working of this LICENSE.

- 6 Such buildings, accommodation, electric fittings including lights, fans, etc office furniture and equipments, fire and other appliances, boats, launches and other things and materials necessary for the efficient performance and discharge of the functions and obligations on the part of the licensee under this LICENSE, shall be arranged and procured by the licensee himself at his own cost and risk.
- 7 (1) The licensee shall maintain or cause to be maintained the correct and true accounts of all transactions and dealings in relation to his business under the terms and conditions of this LICENSE and the accounts so maintained or caused to be maintained shall, among other things, clearly show the details of all moneys received and paid, and all transactions carried out by the licensee with the inhabitants of the said reserved area and with Government and all other matters which may be necessary to manifest the state of business affairs of the licensee under this LICENSE or which may be specified by the Chief Commissioner.
- (2) All books of accounts maintained or caused to be maintained by the licensee under sub-clause (1) shall be kept in the licensee's office of _____ and shall, on demand, be made available at all reasonable times, to the Chief Commissioner or to such officer of Government as may be authorized by the Chief Commissioner in this behalf for the purpose of inspection, examination, copying, audit or any other reasonable purpose.
- (3) The licensee shall duly account for the Government properties in his possession and shall submit such periodical and other reports as to the state of such properties and other matters connected with this LICENSE as may from time to time be required by the Chief Commissioner.
- 8 Where any articles, things, goods, materials, or any other property belonging to Government is held or handed by the licensee on behalf of Government, the licensee shall be responsible and liable for any loss or damage to such articles, things, goods, materials or property and shall always be deemed to have indemnified Government against such loss or damage.
- 9 (1) Notwithstanding anything hereinbefore contained, this LICENSE shall at the option of the Chief Commissioner be liable to cancellation forthwith in each and every of the following events, that is to say:
 - (a) If the licensee commits any breach of any of the provisions of the said Regulation or of the said Rules or of any of the terms or conditions of this LICENSE or of any of the provisions herein contained.
 - (b) If the licensee fails to perform any of the functions or discharge any of the obligations on his part under this LICENSE.
 - (c) If the licensee becomes insolvent.
 - (d) If the licensee ceases to exist as a trading concern in its existing formation on account of dissolution or liquidation or otherwise on account of an order passed by any competent Government authority or any competent Court.
- (2) Where this LICENSE is cancelled under sub-clause (1), the Chief Commissioner shall, without prejudice to his other rights and powers herein contained, be entitled and have full power to take over, at his discretion, any of the property of the licensee and to dispose them of at the risk and expense of the licensee and realize Government claims from the proceeds and also from the moneys due to the licensee on account of any transactions with Government under this LICENSE or any other agreement or understanding with Government.
- 10 Without prejudice to the provisions of clause 9, the Chief Commissioner may, at any time without advancing any reasons, cancel this license by delivering a notice of such cancellation in writing to the licensee at least two months in advance of the date on which such cancellation is intended by the Chief Commissioner to take effect:

PROVIDED that the licensee shall also be entitled and have full power to surrender this LICENSE at any time during its continuance by delivering a notice of such surrender in writing to the Chief Commissioner at least two months in advance of the date on which such surrender is intended by the licensee to take effect.

- 11 Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the licensee to any officer, servant or representative of Government in relation to the grant of this LICENSE shall, in addition to any criminal liability incurred by the licensee render this LICENSE liable to cancellation in the discretion of the Chief Commissioner and any loss or damage resulting to Government on account of such cancellation shall be compensated by the licensee.
- 12 Where the LICENSE is intended to be cancelled by the Chief Commissioner and a notice or intimation of such intention has been given to the licensee by the Chief Commissioner, the licensee shall wind up his business, interest, liabilities and affairs in or in relation to or in respect of the said reserved area and settle all the claims of Government and third parties before the date on which such cancellation is to take effect and in particular the licensee shall, if required by the Chief Commissioner deliver the stock of goods and materials procured by him in the said reserved area to Government on payment of fair and reasonable prices therefore by Government.
PROVIDED that provisions of this clause shall, in effect be in addition to and not in derogation of any of the other provisions herein contained.
PROVIDED ALSO that in the context of any consequences ensuing from the operation of the provisions of this clause, the licensee shall always be deemed to have indemnified Government against any loss or damage to the interests of the licensee or of any other person or party having any dealings with the licensee.
- 13 In the event of cancellation of this LICENSE before the expiry of the period of its validity ending on the term of this LICENSE shall, notwithstanding anything herein contained expire on the date on which such cancellation is to take effect and all references herein to 'the term of this LICENSE' shall be construed as references to the term so expiring on such date.
- 14 The licensee shall, within seven days from the date of grant of this LICENSE, deposit with Government a sum of Rs.6000/- (rupees six thousand) as security for the due performance for the functions and discharge of obligations on his part under this LICENSE and for strict observance of such terms and conditions of this LICENSE, and the sum so deposited shall, during the continuance of the term of this LICENSE, be retained by Government as security as aforesaid without any liability on its part to pay any interest thereon to the licensee and shall, on expiry of the said term, be refunded to the licensee on presentation by him of a 'No Demand' certificate and return in good condition of Government properties issued or entrusted to him;
PROVIDED that in the event of any default or failure on the part of the licensee in the performance of such functions or discharge of such obligations or in the observance of such terms and conditions, the sum so deposited or any part thereof shall, in the discretion of the Chief Commissioner be liable to be forfeited to Government without prejudice to any other rights, titles or remedies enforceable by Government on account of such default or failure.
- 15 No default, failure or omission on the observance of any of the terms or conditions of this LICENSE or in the performance or discharge of any of the functions or obligations arising therefrom, shall give rise to, any claim against the licensee or be deemed to be a breach of this LICENSE if such default, failure or omission, as the case may be, has occurred as a result of any force majeure such as political or administrative acts of recognized or de facto foreign states, act of God, act of enemies of the Republic Of India, strikes, lock-outs, epidemics, frosts, accidents by fire or inundation or at sea, eruptions, earth quakes, landslips, etc.
- 16 Such matters are not as expressly provided in this LICENSE but determination whereof may be necessary in the course of performance of the functions or discharge of the obligations, shall be regulated in accordance with the directions or instructions of the Chief Commissioner and the licensee shall have no title right or power to question such directions or instructions which shall be binding on Government and also on the licensee.
- 17 Provisions of this LICENSE shall also be subject to such laws as are for the time being in force in the Andaman and Nicobar Islands or as may be enacted hereafter by any competent authority.
- 18 If any dispute, difference or question shall, at any time hereafter arise between the licensee and Government or the persons claiming under them respectively on account of the breach of non-observance of any of the covenants, terms, conditions stipulations or agreements herein contained or otherwise attaching or in any way relating to the construction meaning and effect of this LICENSE or any clause or thing herein contained or as to any act done or omitted to be done under this LICENSE, or the rights, titles, powers, duties, obligations or liabilities of the licensee and Government respectively except and excluding, however, disputes, difference or questions, the decision whereof is otherwise expressly provided in this LICENSE, such dispute, difference or question as the case may be, shall be referred to the arbitration of an arbitrator nominated by the Chief Commissioner and the decision of such arbitrator shall be final and binding on the parties hereto:

PROVIDED that the provisions of the Arbitration Act, 1940 and of every statutory modification of re-enactment thereof and also of the rules made thereunder from time to time shall apply to such arbitration and this deed shall be deemed to be a submission to arbitration.

PROVIDED ALSO that upon such reference to arbitration, the licensee shall, as far as reasonably possible, continue to comply with the terms and conditions of this LICENSE during the arbitration proceedings, and no payment due or payable by or to Government shall be with-held on account of such proceedings unless such payment is the subject matter of arbitration.

Dated at Port Blair

theday of 19

*Chief Commissioner
Andaman & Nicobar Islands*

FORM I

(See Rule 10)

Register of licenses for trade or business granted under sub-section 6 of the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956

	1	* Number of license.
	2	Licensee's name, father's name, nationality and address. (Other details in the case of a firm, company, etc.)
	3	Details of the reserved area.
	4	Nature of the trade or business for which license has been granted
	5	Registered Nos and description of boats and sea worthy boats used, employed or engaged by the licensee in carrying on trade or business.
	6	Date of grant of license.
	7	Period for which the license has been granted.
	8	Challan No and date of payment of the prescribed fee for the grant of license.
	9	Amount of security deposit, if any
	10	Challan No & date of deposit of security, if any
	11	Date of refund of security, if any.
	12	Date on which license ceased to be valid.
	13	Whether license ceased to be valid on account of normal expiry or non payment of Government dues or cancellation or otherwise.
	14	Remarks

* Each license shall be given a separate number serially.



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The Andaman and Nicobar Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

No. 73, PORT BLAIR, THURSDAY 19 JULY 1979 / ASADA 28, 1901

*Andaman & Nicobar Administration**Chief Commissioner's Secreteriat*

NOTIFICATION

Port Blair, the 19th July 1979 / Asada 28, 1901

No. 107-7/F.No. 40.243/78-TW: In exercise of the powers conferred by sub-section (1) of Section 3 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes), Regulation 1956 (Regulation No. 3 of 1956) and in partial modification of the Administration's Notification No. ANPATR/3 (r)/1 dated 2-4-1957, published in the *Andaman and Nicobar Gazette* Extraordinary No. 3 of the same date as subsequently amended, the Chief Commissioner, Andaman and Nicobar islands hereby declare the following areas in South and Middle Andamans as reserved areas for the purpose of the said Regulation, namely:

South Andaman

The part of South Andaman Islands situated in the west of the imaginary boundary line including coastal water upto 3km starting from the mouth of Constance Bay proceeds north upto north west corner of village Tirur and thence proceeds towards east-north and joins Andaman Trunk Road at a point 2km south of Miletalak from where the boundary proceeds towards north upto Middle strait point along the western side of Andaman Trunk Road having a 200 metre belt excluding village areas of Miletalak and all allotted land of Jirkatang area. From middle Strait point the boundary proceeds towards north via Needhan reach, enclosing Bluff and Spike Islands, to Yeratil Jig.

Middle Andaman

The part of the Middle Andaman Islands situated in the western side of the imaginary boundary line including coastal water upto 3km starting from Yeratil Jig and proceeds towards north-east excluding village areas of Kadamtala and touches Andaman Trunk Road at a point 12km north of Uttara Jetty and passes alongside the road leaving 200 metre belt upto 24km point of the Andaman Trunk Road from Uttara Jetty and thence due north through jungle upto a distance of 6km and then towards north-east from a distance of 7km and further proceeds due north for 11km and then joins Wolaga Boilu Creek. Thereafter the boundary line proceeds north-west through the boundary Wolaga Boilu Creek upto the point 1/3km from the northern tip of the village Hanspuri and skirt around South West and southern side keeping the same half a km distance from village Hanspuri extending and culminating ultimately at Bush Police Camp No. 32 facing the luice Inlet including entire Wolaga Boilu, Melagar Boilu and Mar Boilu Creeks.

By order
(Siri Kishen),
Assistant Secretary (General)

The Andaman and Nicobar Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

NO. 6, PORT BLAIR, MONDAY 22 APRIL 1957

Office of the Chief Commissioner

Andaman & Nicobar Islands

NOTIFICATION

Port Blair, the 21st April 1957

No. AN/PATR/7/1: In exercise of the powers conferred by section 7 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation 1956 (Regulation No. 3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands is pleased to prohibit every person other than a member of an aboriginal tribe from entering a reserve area in the Andaman and Nicobar islands except on the authority, and subject to the observance of the conditions and restrictions, of a pass granted by the Deputy Commissioner of the said islands or by such other officer as the said Deputy Commissioner may authorise in writing in this behalf.

T.G.N.AYYAR
Chief Commissioner, A & N Islands
(F.No. 1-89 (1)/56-G)
(G.P. 52/57)

No. 5/5(a)/11-59

Office of the Deputy Commissioner

Andaman & Nicobar Islands

Port Blair, the 29th December, 1971

ORDER

In exercise of the powers conferred on him under section 7 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956, the Deputy Commissioner, Andaman and Nicobar Islands is pleased to authorise the Assistant Commissioner, Campbell Bay and the Assistant Commissioner, Nicobars to grant tribal passes under rule 5 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Rules, 1957.

Sd/
(R. KAUUJA)
Deputy Commissioner
Andaman and Nicobar Islands

Copy to:

- 1 The Chief Secretary, A & N Administration.
- 2 The Addl. Deputy Commissioner, Car Nicobar
- 3 The Assistant Commissioner, Campbell Bay.
- 4 The Assistant Commissioner, Nancowry.
- 5 The Supdt. of Police, Port Blair.
- 6 The Harbour Master, Port Blair.

Sd/
Deputy Commissioner

The Andaman and Nicobar Gazette

PUBLISHED BY AUTHORITY

No. 1, PORT BLAIR, FRIDAY 5 FEB. 1960 / MAGHA 16, 1881

*Office of the Chief Commissioner
Andaman & Nicobar Islands*

NOTIFICATION

Port Blair, the 18th January 1960 / 28th Pausa 1881

No. 10/60: In partial modification of his Notification No. AN/PATR/7/1 dated the 21st April 1957 and in exercise of the powers conferred by section 7 of Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation No. 3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands is pleased to order that all Government servants while proceeding on duty to a reserved area and the families of such government servants shall be exempted from taking out a pass or passes for entering a reserved area in the Andaman and Nicobar Islands.

'Family' means Govt. servant's wife, children, step children, parents and sisters and minor brothers if residing with and wholly dependable on him.

The Andaman and Nicobar Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

No. 107, PORT BLAIR, FRIDAY 27 MAY 1977 / JYAISTHA 6, 1899

*Andaman & Nicobar Administration
Chief Commissioner's Secreteriat*

NOTIFICATION

Port Blair, the 27th May, 1977 / Jyaistha 6, 1899

No. 108/77/F. No. 15-222/76-J. I: In exercise of the powers conferred by sub-section (1) of section 3 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation 3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands, hereby makes the following amendments to the Notification No. ANPATR/3(1)/1 dated the 2nd April, 1957 and published in A & N Gazette Extraordinary No. 3 dated the 2nd April, 1957 as amended by the Notification No. 62/72/F. No. 81-9/71-71-J. (I) dated the 20th April, 1972 published in the Andaman and Nicobar Gazette, Extraordinary No. 51 dated the 20th April, 1972, namely:

AMENDMENT

In the said notification, under Amendment No. I, the following entries shall be substituted for the existing entries against 'latitude': 'Between latitude 10° 34 minutes North and 10° 45 minutes 30 seconds North.'

*By order
K. K. Warriar
Assistant Secretary (Gen.)*

The Andaman and Nicobar Gazette

EXTRAORDINARY
PUBLISHED BY AUTHORITY

No. 50, PORT BLAIR, SATURDAY 31 MAY 1969 / JYAISTHA 10, 1891

Andaman & Nicobar Administration
Chief Commissioner's Secreteriat

NOTIFICATION

Port Blair, the 31st May, 1969 / Jyaistha 10, 1891

No. 61/69/F. No. 50-8/68-J (I): In exercise of the powers conferred by section 10 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation No. 3 of 1956), I, H.S. Butalia, Chief Commissioner, Andaman and Nicobar Islands, hereby makes the following amendment to the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Rules, 1957.

AMENDMENT

In the said rules, for the existing Rule 11, the following shall be substituted.

II Fees for passes and licences

No pass or licence shall be granted unless the fee in respect thereof as indicated below has been paid to Government, namely:

Details of pass, etc	Rate of fee
(i) A Pass to be granted to a settler selected for settlement in Andaman and Nicobar Islands under the Accelerated Development Programme of the Ministry of Labour, Employment and Rehabilitation (Dept. of Rehabilitation)	Nil
(ii) Subject to item (i) above, a pass to be granted for a period not exceeding one month.	Re. 1/-
(iii) A pass other than a pass specified at item (i) or (ii) above.	Rs. 5/-
(iv) Renewal of a pass	The same fee as for the original grant of pass.
(v) A licence for general trade or business	Rs. 500/-
(vi) A licence for miscellaneous trade	Rs. 500/-

HS Butalia
Chief Commissioner, Andaman and Nicobar islands

By order and in the name of Chief Commissioner
BC Achari
Assistant Secretary to the Chief Commissioner

Andaman & Nicobar Administration
Chief Commissioner's Secreteriat

NOTIFICATIONS

PORT BLAIR, THE 16TH JANUARY, 1969 / PAUSA 26, 1890

No. 6/69/50-8/68-J. I: In partial modification of Notification No. AN/PATR/7/1 dated 21st April, 1957 and in exercise of the powers conferred by section 7 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation No. 3 of 1956), I, H.S. Butalia, Chief Commissioner, Andaman and Nicobar Islands, hereby order that the employees of the Indian Rubber Board while proceeding on duty to a reserved area shall be exempted from taking out a pass or passes for entering a reserved area in the Andaman and Nicobar Islands subject to the condition that each such employee is provided with an Identity Card by the Rubber Board or its duly authorised officer.

HS Butalia
Chief Commissioner,
Andaman & Nicobar islands

By order and in the name of Chief Commissioner
BC Achari
Assistant Secretary to the Chief Commissioner
(F. No. 50-8/68-J. I)

The Andaman and Nicobar Gazette, February 5, 1969

PORT BLAIR, THE 24TH JANUARY 1969 / MAGHA 4, 1890

No. 8/69/No. 139/SW/68-Jud. II: Under Rules 4 and 6 of the Rules of the State Social Welfare Advisory Board, Andaman and Nicobar Islands and in consultation with the Central Welfare Board, the Chief Commissioner, Andaman and Nicobar Islands has been please to appoint Smt. Harinder Butalia, as Chairman of the Andaman and Nicobar Social Welfare Advisory Board with immediate effect.

By order
BC Achari
Assistant Secretary to the Chief Commissioner

PORT BLAIR, THE 27TH JANUARY 1969 / MAGHA 7, 1890

No. 9/69/F. 83-56/66-Adm. (EPH): Under Section 10(2) of the Indian Nursing Council Act 1947 read with Government of India, Ministry of Home Affairs Notification No. F. 2/6/68- UTL dated the 27th March, 1968, the Chief Commissioner, Andaman and Nicobar Islands, has been pleased to recognize the Certificates issued by the Board of Examiners in Auxiliary Nursing Midwifery Course constituted in the Administration's Notification No. 38/67/F. No. 83-56/66-Adm. dated the 21st April, 1967 with effect from 16-12-1963 i.e. the date of commencement of the first batch of training.

By order
BBL Bharadwaj
Secretary (F) to the Chief Commissioner



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The Andaman and Nicobar Gazette

EXTRAORDINARY
PUBLISHED BY AUTHORITY

No. 77, PORT BLAIR, WEDNESDAY 28 JUNE 1972 / ASADHA 7, 1894

Andaman & Nicobar Administration

Chief Commissioner's Secreteriat

NOTIFICATION

Port Blair, the June 28, 1972 / Asadha 7, 1894

No. 95/72/81-15/72-J (I): In exercise of the powers conferred by sub-section (1) of section 3 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation 3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands, hereby makes the following amendment to Notification No. ANPATR/3(1) I dated the 2nd April, 1957 and published in Andaman and Nicobar Gazette, Extraordinary No. 3 dated the 2nd April, 1957, as subsequently amended namely.

AMENDMENT

In the said notification as subsequently amended, in clause (c), the following shall be added as item No. (viii), namely:
'(viii) Strait Island.'

Har Mander Singh
Chief Commissioner
Andaman and Nicobar Islands
By order and in the name of the Chief Commissioner
PG Balaraman Nair
Assistant Secretary (CC)

Andaman & Nicobar Administration

Chief Commissioner's Secreteriat

ORDER No. 2648

Port Blair, the 10th September, 1971 / Bhadra 19, 1893

In pursuance of the provision contained in sub-rule (2) of rule 12 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Rules, 1957, I, H.S. Butalia, Chief Commissioner, Andaman and Nicobar Islands hereby fix that the minimum rate at which Dhup Resin may be purchased by a licensee from the Aboriginal Tribes of any reserved area shall be Rs. 125/- (Rupees one hundred twenty-five only) per quintal and that the total quantity of Dhup Resin so purchased by a licensee shall not exceed 100 tonnes per annum.

HS Butalia
Chief Commissioner
Andaman and Nicobar Islands
By order and in the name of the Chief Commissioner
PG Balaraman Nair
Asst. Secretary (Confidential Cell)
No. 81-7/71-J. I.

The Andaman and Nicobar Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

NO. 62, PORT BLAIR, THURSDAY 24 MAY 1973 / JYAISTHA, 3, 1895

Andaman & Nicobar Administration

Chief Commissioner's Secreteriat

NOTIFICATION

Port Blair, the 24th May, 1973 / Jaistha 3, 1895

No.65/73/E. No.81-14/72-J.I.: In Exercise of the powers conferred by subsection (l) of section 3 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation 3 of 1956), the Chief Commissioner, Andaman and Nicobar Islands, hereby makes the following amendment to the Administration's notification No.AN/PATR/3(I) 1 dated the 2nd April, 1957, published in Andaman and Nicobar Gazette, Extraordinary No.3 of the same date as subsequently amended namely:

AMENDMENTS

In the said notification as subsequently amended, in clause (c), item (i) 'Rutland' shall be omitted.

Har Mander Singh
Chief Commissioner
Andaman and Nicobar Islands

By order and in the name of the Chief Commissioner
KK Warriar,
Assistant Secretary (Genl.)

The Andaman and Nicobar Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

NO. 51, PORT BLAIR, THURSDAY 20 APRIL 1972 / CHAITRA 31, 1894

Andaman & Nicobar Administration

Chief Commissioner's Secreteriat

NOTIFICATION

Port Blair, the 20th April, 1972 / Chaitra 31, 1894

No.62/72/F. No.81-9/71-J.I.: In exercise of the powers conferred by subsection (1) of section 3 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation 3 of 1956), I, Har Mander Singh, Chief Commissioner, Andaman and Nicobar Islands, hereby make the following amendments to the Notification No. ANPATR/3 (1) / 1. dated the 2nd April, 1957 and published in Andaman and Nicobar Gazette, Extraordinary No.3 dated the 2nd April, 1957, as subsequently amended, namely.

AMENDMENTS

In the said notification as subsequently amended:

Amendment No.1

In clause (c), item (vii), for the words 'up to and including Little Andaman' the following shall be substituted, namely: 'Up to and including Little Andaman except the area on the eastern coast of Little Andaman Island located within the following co-ordinates:

Longitude – between the longitude 92° 28 minutes East and 92° 35 minutes East;

Latitude – between latitude 10° 34 minutes North and 10° 44 minutes North.'

Amendment No.2

In clause (d), in the opening paragraph, the following shall be added at the end namely:

'and the area located between the co-ordinates mentioned below in the eastern coast of Great Nicobar Island.

LONGITUDE – the area between longitude 93° 50 minutes East and 93° 57 minutes East.

LATITUDE – the area between latitude 6° 53 minutes and North 7° 2 minutes North.'

*Har Mander Singh
Chief Commissioner
Andaman and Nicobar Islands*

*By order and in the name of the Chief Commissioner
PG Balaraman Nair
Asst. Secretary (Confidential Cell)*

Andaman & Nicobar Administration
Secreteriat
Port Blair, dated the 13th Oct / 2nd Nov 1989

NOTIFICATION

No. /No.1-467/86-TW: In exercise of the powers conferred by Sub Section (1) of Section 3 of the Andaman and Nicobar Islands (Protection of Aboriginal tribes) Regulation, 1956 (No.3 of 1956) the Lieutenant Governor (Administrator) Andaman and Nicobar Islands hereby makes the following amendment to the Administration's Notification No.ANPATR/3 (1) /1 dated 2nd April, 1957 as published in Andaman and Nicobar Gazette, Extraordinary No.3 dated 2nd April, 1957 and as subsequently amended, namely:

AMENDMENT

In the said Notification at the end of clause (a) the following shall be inserted: 'and New Survey No.2265/5 area measuring 1000 sq. meters situated at Aberdeen Village, Port Blair, Andaman District.'

By Order
Sd/-
(AC Kher)
Secretary (Tribal Welfare)

Copy to:

- 1 The Manager, Govt. Press, Port Blair, with request that the Notification may be published in the Extra Ordinary Gazette of A & N Islands & 20 copies may be supplied to the Directorate of tribal Welfare in the Secretariat.
- 2 The Deputy Commissioner, Andamans District, Port Blair.
- 3 The Deputy Commissioner, Nicobars District, Car Nicobar.
- 4 The Inspector General of Police, A & N Islands, Port Blair.
- 5 The Asst. Secretary (Law) A & N Administration, Port Blair.
- 6 The Publicity Officer, A & N Administration, Port Blair with the request that a suitable news items may be published in the *Daily Telegram*.
- 7 The Hindi Cell, Secretariat, with the request that the notification may be translated into Hindi and the same be sent to the Directorate of Tribal Welfare.
- 8 The Legal Section, Secretariat, Port Blair.

*Andaman & Nicobar Administration**Secreteriat**Port Blair, dated the 9th November, 1990*

NOTIFICATION

No.181/90/F.No.1-467/86-TW: In exercise of the powers conferred by Section 7 of the Andaman and Nicobar Islands (Protection of Aboriginal tribes) Regulation, 1956 (No.3 of 1956) and in partial modification of this Administration Notification No. AN/PATR/7/1 dated 21st April, 1957, the Lieutenant Governor (Administrator) Andaman and Nicobar Islands has been pleased to order that all the Defence personnel while proceeding to a reserved area in the discharge of their specific duty in organised body shall be exempted from taking out a pass for entering in such area in the Andaman and Nicobar Islands. The Administration will be intimated about such movement so as to inform elements of Bush Police and forest employees working in the area.

This supersedes the Administration Notification No. 62/69/F.NO. 50-8/68-J(1) dated 3rd June, 1969 as published in the Andaman and Nicobar Gazette Extra-ordinary No. 51 dated 3rd June, 1969.

*(Lt. Gen. Ranjit Singh Dyal)**Lieutenant Governor**Andaman and Nicobar Islands**By order and in the name of the Lieutenant Governor**Sd/-**Secretary (Tribal Welfare)***No. 1-467/86-TW:***Dated the 1st November, 1990*

Copy forwarded to the Manager, Govt. Press, Port Blair, with request that the above Notification may please be published in the Extra Ordinary Gazette forth-with and 40 copies of the notification supplied to the Directorate of Tribal Welfare in the Secretariat. Copy forwarded to the Hindi Officer, A & N Islands with the request that Hindi version of the notification may be provided to the Manager, Govt. Press, Port Blair for publication of the notification in the official Gazette.

Copy also forwarded to the following for information:

- 1** The Chief of Staff, Fortress Commander, A & N islands.
- 2** The Deputy Commissioner, Andamans District, Port Blair.
- 3** The Deputy Commissioner, Nicobars District, Car Nicobar.
- 4** The Inspector General of Police, A & N Islands, Port Blair.

*Sd/**Secretary (Tribal Welfare)*

The Andaman and Nicobar Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

No. 108, PORT BLAIR, SEPT. 10 1991

Andaman & Nicobar Administration

Secreteriat

Port Blair, dated 10th Sept, 1991

No. 104/ F.No 1-582/91-TW: In exercise of the powers conferred by Sub-section (1) of section 3 of the Andaman and Nicobar Islands (Protection of Aboriginal Tribes), Regulation, 1956 (No 3 of 1956), the Lieutenant Governor (Administrator), Andaman and Nicobar Islands hereby makes the following amendments to this Administration Notification No ANP-TR/3 (1) dated the 2nd April 1957, published in the Andaman and Nicobar Gazette, Extraordinary No. 3 dated the 2nd April 1957 as subsequently amended from time to time with immediate effect, namely:

AMENDMENTS

In the said Notification after Item No (VIII) in clause (c) the following entries shall be Inserted as Item No (IX):

- (ix)(a) For Onges of Dugong Creek, Little Andaman Island:
The coastal sea extending upto 5kms from the high water mark within the Imaginary line commencing on the Eastern Coast of Little Andaman Island at the North Latitude of 10° 45 minutes 30 seconds extending towards North and further North West up to 92° 25 minutes East longitude.
- (b) For Onges of South Bay and Nicobarese of Harminder Bay Little Andaman Island:
The coastal sea extending upto 5kms from the high water mark within the Imaginary line which commences on the Eastern Coast of Little Andaman Island at the North Latitude of 10° 34 minutes extending towards South and further to South-West up to 0° 35 minutes North Latitude on the Western Coast of West Bay of Little Andaman Island
- (c) For Andamanese of Strait Island:
The coastal sea extending upto 5kms from the high water mark around the Strait Island.
- (d) For Sentinelese of North Sentinel Island:
The coastal sea extending upto 5kms from the high water mark around the North Sentinel Island.

(Lt. Gen. Ranjit Singh Dyal)
Lieutenant Governor
Andaman & Nicobar Islands

By Order and in the name of the Lieutenant Governor
Sd/-
Secretary (Tribal Welfare)
(F. No. 1- 582/ 91 - TW)

Andaman & Nicobar Administration
Secreteriat
Port Blair, dated the 15th September 2004

NOTIFICATION

No.159/2004/F.No./1-752/2002-TW (PF): On the recommendation of Andaman Adim Janjati Vikas Samiti to increase the resource base of Jarawas and in exercise of the powers conferred by the sub section (1) of Section 3 of the Andaman & Nicobar Islands (Protection of Aboriginal Tribes) Regulation, 1956 (Regulation No. 3 of 1956) and in supersession of the Administration's notification No. 1077/F. No. 40-243/78-TW dated 19th July, 1979 and notification No. 1-324/82-TW dated 09/04/1984, the Lt. Governor, Andaman & Nicobar Islands hereby declares the following areas in South and Middle Andaman as reserved areas for the purpose of the said Regulation, namely: -

South Andaman

The part of South Andaman Island situated in the west of the imaginary boundary line starting from the mouth of Constance Bay (East Longitude 92degree 34' 03" and North Latitude 11degree 39' 52") proceeds towards north up to mouth of Banjlungtajig (East Longitude 92degree 35' 20" and North Latitude 11degree 42' 18") and proceeds towards east through the mangrove swamp and meets a point (East Longitude 92degree 36' 26" and North Latitude 11degree 42' 31"). Then the boundary proceeds North and follows the ridge (East Longitude 92degree 36' 26" and North Latitude 11degree 43' 51") and meets a point (East Longitude 92degree 36' 59" and North Latitude 11degree 44' 25") and then boundary turns South East and proceeds through a point (East Longitude 92degree 37' 20" and North Latitude 11degree 44' 15") and further proceeds towards North through a point (East Longitude 92degree 37' 46" and North Latitude 11degree 46' 14") and thence proceeds towards North-East and joins a point 30 M West of center line of Andaman Trunk Road at milestone of 52 Kms point on Chidiyatapu to Middle Strait Andaman Trunk Road, from where the boundary proceeds along side the Andaman Trunk Road excluding area of Mile Tilak village and all allotted land of Jirkatang area up to the milestone of 61 Kms. The boundary then turns towards east and follows the ridge of 100 M height point (East Longitude 92degree 40' 10" and North Latitude 11degree 51' 35") and proceeds further South-East and passes through the 123 M height ridge (East Longitude 92degree 41' 02" and North Latitude 11degree 51' 12") and further proceeds South-East and meets a point (East Longitude 92degree 42' 26" and North Latitude 11degree 50' 11") and finally joins Mangrove Creek at point (East Longitude 92degree 42' 15" and North Latitude 11degree 49' 57") and afterwards follows through the mangrove creek and then western bank of Shoal Bay Creek and thereafter proceeds North along the eastern coast of South Andaman Island (excluding James, Kyd, other Islands and islets) and follows Amita Boicha Passage and then follows Southern bank of Middle Strait excluding Middle Strait Jetty / harbour, Belle Island, Boning Islands, Oralkatcha, Baby Islands, Stroat Island and Talakaicha Island. Then the boundary follows Middle Strait towards northwards via Needham reach passage, enclosing Bluff and Spike Islands and then follows Homfray's Strait up to Yeratiljig Creek mouth.

Middle Andaman

From the above point namely the mouth of Yeratiljig creek (East Longitude 92degree 44' and North Latitude 12degree 18' 23") boundary in Middle Andaman follows Yeratiljig creek along western bank excluding village area of Kadamtala and boundary finally meeting milestone of 142 Kms on ATR (i.e. 12 Kms milestone from Uttara Jetty). Then it follows the ATR leaving 30 M from the center line of road up to 24 Km point of the Andaman Trunk Road from Uttara Jetty and thence the boundary follows the ridge of 100 M height point (East Longitude 92degree 47' 20" and North Latitude 12degree 30'), ridge of 104 M height point (East Longitude 92degree 47' 55" and North Latitude 12degree 31' 10"), ridge of 122 M height point (East Longitude 92degree 48' 21" and North Latitude 12degree 32' 24"), ridge of 168 M height (East Longitude 92degree 48' 28" and North Latitude 12degree 32' 45"), ridge of 122 M height point (East Longitude 92degree 49' 02" and North Latitude 12degree 33' 39"), ridge of 125 M height point (East Longitude 92degree 50' 34" and North Latitude 12degree 35' 50"), ridge of 132 M height point (East Longitude 92degree 50' 21" and North Latitude 12degree 36' 45") and meets the origin of Pichar Nullah (East Longitude 92 degree 50' 28" and North Latitude 12degree 37' 33", i.e. the old Kalsi 4 No. JPP). Then the boundary follows towards Northwards following the ridge of 68 M height point (East Longitude 92degree 50' 23" and North Latitude 12degree 38' 37"), ridge of 73 M height point (East Longitude 92degree 50' 17" and North Latitude 12degree 39' 48") then turns North-East and follows the ridge of 194 M height point (East Longitude 92degree 51' 10" and North Latitude 12degree 41' 55") and then the boundary turns to

North-West and passes through the ridge of 201 M height point (East Longitude 92degree 49' 30" and North Latitude 12degree 42' 48") and ridge of 100 M height point (East Longitude 92degree 48' 40" and 12degree 43' 05") and meets the Chainpur Nullah in mangrove swamp at a point (East Longitude 92degree 48' 06" and North Latitude 12degree 43' 14") then proceeds towards west through Chainpur Nullah and meets a point having East Longitude 92degree 47' 02" and North Latitude 12degree 43' 27" and then boundary follows southwards through the mangrove swamp following western bank of Chainpur Nullah and finally meets sea through Lewis Inlet.

The existing belt of 200 metres from the central line of Andaman Trunk Road, on either side is restricted to 30 metres on either side of the ATR except at Nilambur-Middle Strait and Uttara-Gandhighat where the existing jetty and port facilities will continue to be outside the reserved area. The above reserve is also extended to coastal waters up to a distance of 5 Km from the high tide line on the western side of the South and Middle Andaman Islands from Constance Bay to Lewis Inlet Bay.

By Order
Sd/
Assistant Secretary (Tribal Welfare)
(2004/T2-Jarawa notification)

Hospital Areas Reserved for the Jarawas

The A&N Administration has declared various places as reserved area under the Protection of Aboriginal Tribes Regulation. Accordingly, the places designated as reserved area are the ward reserved for the Jarawas at Primary Health Centre, Tushnabad, comprising an area of 100 sq. mtrs in survey No. 103/1 at village Muslim basti located in western side to the existing PHC Building. The ward reserved for the Jarawas in the first floor of the Special Ward of the G.B. Pant hospital connected by a staircase from the ground floor of the Special Ward and the ward reserved for the Jarawas at Primary Health Centre, Kadamtala comprising an area of 250 Sq. mtrs in Survey No. 1/6 at village Shantanu located on western side to the existing PHC building and connected by a concrete path have also been reserved for this purpose, an official communication issued by the Secretary (TW) said here today.

Source: The Daily Telegrams, June 9, 2004

Annexure II

Policy on Jarawa Tribe of Andaman Islands As approved by the Kolkata High Court

I INTRODUCTION

The High Court of Calcutta (Circuit Bench at Port Blair) vide their order dated 9-4-2001 in WP No. 048 of 1999 (PIL) – Ms. Shyamali Ganguly, Advocate Vs Union of India and Others; inter-alia, directed the Central Government as under:

‘The Central Government through the Principal Secretary, Ministry of Home Affairs, within two months from the communication of this order shall form a Committee of Experts with the Lt. Governor of the Islands as the Convener, comprising of renowned Anthropologists, Sociologists, Nutrition Experts, Doctors for immediately undertaking a scientific study, research and survey in the aforesaid change in the behaviour of the Jarawas and to find out the cause of the same...

The said Committee shall submit its report within six months from the formation of such Committee before the Central Government and Lt. Governor, A&N Islands and also shall file a copy thereof before the Circuit Bench of this Court.

Within six months thereafter the Central Government through the Home Secretary himself and the Lt. Governor of the Andaman & Nicobar Administration shall formulate a policy, plans and programmes on the aforesaid questions whether the steps should now be taken for bringing the Jarawas in the mainstream of the society or they should be left to their own way of life as before or the balance between the two should be struck following the peaceful existence theory as suggested by Mr. Awaradi in his Master Plan or any other experts. For the aforesaid purpose, the Central Government shall arrange seminars and open discussions of the different experts, National and International on the line, Anthropologist, Sociologist and others as also individuals and non-governmental organizations having knowledge and experience in the matter inviting them by issuing public notification in widely circulated news papers and sending them letters of invitation and thereafter shall frame the policy decision within the stipulated period after deliberation and discussion on such opinions with the approval of the concerned Ministry. The Central Government shall also publish the papers, discussions and deliberation of such seminar, at its cost, for future reference...

After formulation of such policy, the same shall be notified by the Central Government and the A&N Administration and shall also be placed before the Circuit Bench of this Hon'ble Court for appropriate order.’

- 2 In pursuance of the aforesaid order of the Hon'ble High Court of Calcutta, a Committee of Experts was constituted by the Central Government vide the Ministry of Home Affairs' Notification No. U-14040/24/99-ANL dated the 21st July, 2001.
- 3 The Committee of Experts submitted its report before the Hon'ble High Court of Calcutta on 28-7-2003. As per the aforesaid directions of the Hon'ble High Court, the Central Government was required to formulate policy, plans and programmes in respect of Jarawas in consultation with the Lt. Governor, A&N Islands after organizing seminars and open discussions with the different experts, national and international, Anthropologists, Sociologists and others as also individuals and non-governmental organizations having knowledge and experience in the matter. Accordingly, the Central Government organized two such seminars one at Kolkata on 7th – 8th April, 2004 and another at Port Blair on 27th – 28th May, 2004 wherein experts, non-governmental organizations and individuals deliberated on various issues relating to the Jarawas and their well being.
- 4 The Central Government in the Ministry of Home Affairs considered the report of Committee of Experts vis-à-vis the views that emerged during the two seminars/open discussions organized by the Central Government on the said report of the Expert Committee in consultation with the A&N Administration and the Ministry of Tribal Affairs, the administrative Ministry for the matters connected with tribes and tribal affairs.
- 5 The Central Government in the Ministry of Home Affairs have consequently decided to frame a policy / guidelines for the protection and welfare of the Jarawas in Andaman & Nicobar Islands with the following objectives in view:

II OBJECTIVES

- (i) To protect the Jarawas from harmful effects of exposure and contact with the outside world while they are not physically, socially and culturally prepared for such interface;
- (ii) To preserve the social organization, mode of subsistence and cultural identity of the Jarawa community;
- (iii) To provide medical help to the Jarawas to reduce mortality and morbidity in case of their sudden affliction with diseases which their systems are unaccustomed to;
- (iv) To conserve the ecology and environment of the Jarawa Reserve Territory and strengthen support systems in order to enable the Jarawas pursue their traditional modes of subsistence and way of life; and
- (v) To sensitize settler communities around the Jarawas habitat and personnel working for the protection and preservation of the Jarawas about the need to preserve this ancient community and to value their unique culture and life styles.

III STRATEGIES / GUIDELINES

The Central Government, with the above objectives in view, have framed the following strategies / guidelines for the protection and welfare of the Jarawas;

I Protection of cultural identity

- (a) The Jarawas shall be considered and treated as a unique human heritage.
- (b) A policy of maximum autonomy to the Jarawas with minimum and regulated intervention shall be adopted by the Government towards the Jarawas. There shall be no intervention in cultural life of the Jarawas and they will be left at liberty to develop according to their own genius and at their own pace. No attempts to bring them to the mainstream society against their conscious will or to rehabilitate them in separate islands / locations at this stage of their social development will be made.
- (c) The quality of intervention with Jarawas will be managed with care and sensitivity through suitably trained and re-oriented personnel, in consultation with and evaluation by anthropologists and experts. The objective will be to avoid dependency syndrome and to ensure their development as a vibrant social group. The personnel working for Jarawas would be provided with proper training and sensitization. The people of the villages near the Jarawa reserve area and other non-tribals will be sensitized regarding the rights and privileges of the Jarawas.

2 Protection of the Natural Habitat

- (a) No exploitation of natural resources within the Jarawa reserve by any non-tribal including Government agencies will be allowed. Necessary measures shall be initiated to curb even occasional extraction of resources from the Jarawa territory by the non-Jarawas. Provisions of A&N Islands (Protection of Aboriginal Tribes) Regulation, 1956 will be enforced more effectively. The A&N Islands (Protection of Aboriginal Tribes) Regulation, 1956 shall be amended to provide stringent punishment for poaching in the Jarawa territory and for exploitation of the Jarawas.
- (b) The notified Jarawa territory shall be fully and effectively demarcated and no attempt to curtail, reduce or to acquire land there from shall be made.
- (c) All encroachments in the Jarawa territory shall be removed on priority basis. Stringent arrangements to ensure that such encroachments do not take place in future will also be made.
- (d) Permanent residence of Government employees / non-tribals in the Jarawa reserve will not be allowed.
- (e) It shall be ensured that no person other than a Jarawa is allowed to enter the notified Jarawa reserve by any means unless he/she is permitted by the competent authority designated by the A&N Administration for this purpose. However, no such permission shall be granted unless the person is proceeding on bonafide work relating to the welfare of the Jarawas or protection of the area.
- (f) No tourist will be allowed to visit / interact with the Jarawas so that curious intrusions are avoided as these intrusions adversely affect their life style and health.

3 Protection of Health Status

- (a) Periodic health survey of the Jarawa community will be organized through a Standing Team of health professionals. Only cases needing intensive care will be brought to the hospital but they will be kept in separate enclosures. Appropriate food will be provided instead of the hospital meals. Whenever female Jarawas come or are brought to hospital, female Police will be posted invariably.
- (b) Medical intervention among the Jarawas, i.e., the line of treatment, use of drugs and medicines will be only on the basis of advice of experts in the relevant fields and shall be administered only when found absolutely necessary.
- (c) Medical assistance to Jarawas will be extended in their reserve area by qualified health officials as far as feasible so that all

the advantages of such in-situ treatment are available to the Jarawas. Jarawa patients will be shifted to hospital only if in-situ treatment is not possible or not felt adequate to save the patient.

- (d) The traditional knowledge of Jarawas including ethno-medicine shall be preserved and documented.
- (e) Diagnostic approach, treatment regimen and prescription of drugs in case of common pattern of diseases observed amongst the Jarawas shall be standardized and documented so that experimentation by individual doctors and conflicting assessments can be avoided.
- (f) Periodic nutritional and food security surveys shall be conducted to ensure that there is adequate provision of food resources to the Jarawas and that there is no fall in nutritional standards.
- (g) The Jarawas shall not be provided food which is alien to their normal dietary habits.
- (h) Officials / workers engaged in the protection and welfare of Jarawas will be regularly screened to ensure that they are absolutely free from any communicable diseases and that they do not encourage addictive habits such as smoking and drinking amongst the Jarawa population.

4 Regulation of traffic on Andaman Trunk Road

- (a) Traffic on Andaman Trunk Road will be regulated strictly limiting the traffic to the essential purposes of public transport, supplies and emergency evacuation of patients and to ensure that it is an innocent and harmless passage and not a source of trouble to Jarawas.
- (b) Vehicles on Andaman Trunk Road will be allowed to move only in restricted hours and in convoy under notified speed limit to avert possible road accidents and to avoid any sort of interaction of travelers with Jarawas.
- (c) Facilities for travel by boat / ship will be strengthened and transportation / travel by sea will be encouraged.
- (d) Maintenance of the Andaman Trunk Road will be carried out by a mobile maintenance team bringing men, machine and materials from Ferrargunj / Jirkatang and carry out the job only during day time.
- (e) The tourist traffic on Andaman Trunk Road will be strictly monitored to ensure that there is no interaction between the Jarawas and the tourists.

5 Codification of Jarawa language

- (a) Codification of the language of Jarawas shall be done with the advice and involvement of experts. However, continuous interaction in the name of codification of language will not be allowed. Codification of language shall be attempted by relevant experts in a discreet manner during periodic health surveys of the Jarawas.
- (b) Officials of the A&N Administration who will be coming in contact with the Jarawas particularly those of Health and Welfare Departments will be encouraged to learn the Jarawa language so that they are able to communicate with them and understand their perceptions, reactions and problems.

6 Institutional arrangements

- (a) The A&N Administration shall be wholly and entirely responsible for the implementation of the aforesaid policy on the Jarawas. It shall lay down detailed tasks for each agency and unit of the administrative machinery and set up structures for monitoring and specific mechanism for enforcing accountability of officials in respect of tasks assigned to them in connection with protection and welfare of the Jarawas.
- (b) The Andaman Adim Janjati Vikas Samiti (AAJVS) an autonomous body will function like a trustee of the interest of the Jarawas and advise A&N Administration regarding the protection and welfare of all aboriginal tribes including the Jarawas.
- (c) The Executive Council of AAJVS assisted by experts and persons having knowledge and experience in tribal affairs under the Chairmanship of Lt. Governor will enforce and monitor implementation of the policy.
- (d) Meaningful research on the Jarawas will be allowed under the advice of AAJVS to further the understanding of their life and culture including their traditional knowledge. However, it shall be ensured strictly that the confidentiality of genetic resources on the Jarawas will be maintained and not used for commercial exploitation by any agency or organization which is not directly concerned with the welfare and protection of the Jarawas.
- (e) Periodic review of this policy will be done so that the policy is dynamic and takes into account changing needs and circumstances.

(C.F. T1-Drawal of Policy-2004)

Annexure III

Andaman Adim Janjati Vikas Samiti (AAJVS)²⁵ Rules (as amended on 05/07/2004)

I Definitions

I.1 In these rules unless there is anything repugnant to the subject to context.

- (a) The 'Samiti' means the Andaman Adim Janjati Vikas Samiti.
- (b) 'Adim Janjati' means and includes the Andamanese, the Jarawas, the Onges, the Sentinelese and the Shompens inhabiting the Andaman and Nicobar Islands.
- (c) The Lt. Governor means the Lt. Governor of Andaman and Nicobar Islands.
- (d) The 'President' means the – President of General Body.
- (e) The 'Vice-President' means the Vice-President of the General Body.
- (f) The 'General body' means the General Body of the Samiti.
- (g) The 'Executive Council' means the Executive Council of the Samiti.
- (h) The 'Chairman' means the Chairman of the Executive Council.
- (i) The 'Vice Chairman' means the Vice-Chairman of the Executive Council.
- (j) 'Memorandum' means the Registered Memorandum of Association of the Andaman Adim Janjati Vikas Samiti as may be amended from time to time by the General Body of the Samiti.
- (k) 'Rules' means the Rules framed with the approval of the General Body and as may be amended from time to time by the General Body of the Samiti.
- (l) 'Office Bearers' means the President, Chairman, Vice-President, Vice-Chairman, Member-Secretary, Executive Secretary or any others who may be designated by the President or the Chairman.
- (m) 'Government' means the Central Government.
- (n) 'Year' means the financial year of the Central Government.

2 Authorities of the Samiti

2.1 The following shall be the authorities of the Samiti:

- (a) General Body
- (b) Executive Council
- (c) Such other authorities as may be prescribed by the President from time to time on the recommendation or otherwise by the General Body or the Executive Council.

3 General Body

3.1 The composition of the General Body shall be: -

- (a) The Lieutenant Governor, Andaman and Nicobar Islands, who shall be the President.
- (b) Two Vice-Presidents elected by the General Body from among the members of the General Body.
- (c) The Member of Parliament, A&N Parliamentary constituency;
- (d) The Chief Secretary, A&N Administration;
- (e) Adhyaksh, Zilla Parishad, A&N Islands;
- (f) The Principal Chief Conservator of Forests, A&N Administration.
- (g) The Development Commissioner, A&N Administration;
- (h) The Inspector General of Police, A&N Administration.
- (i) Secretary (TW), A&N Administration.
- (j) The Chairman, State Social Welfare Advisory Board.
- (k) The Deputy Commissioner, Andamans District.
- (l) The Deputy Commissioner, Nicobars District.
- (m) The Director Health Services, A&N Administration.
- (n) The Director, Anthropological Survey of India, Kolkata.
- (o) The Chief Engineer, A.P.W.D., A&N Administration.
- (p) The Director, R.M.R.C, Port Blair.

²⁵ The AAJVS is the primary body of the Andaman & Nicobar Administration charged with the welfare of the indigeneous communities in the islands

- (q) The Director of Education, A&N Administration
- (r) The Director (TW), A&N Administration
- (s) Seven persons nominated by the Lieutenant Governor from among experts and persons having experience in matters regarding tribal affairs.
- (t) One representatives each from the Ministry of Home Affairs, Ministry of Tribal Affairs.
- (u) The Executive Secretary, AAJVS (Member Secretary);

3.2 The President, will have the power to co-opt / invite from time to time, representative/s of such other organizations, institutions and individuals as deemed desirable in the interest of the Samiti.

4 Term of Office:

4.1 The nominated / co-opted members and office bearers of General Body shall hold office at the pleasure of the President.

5 Meetings of the General Body:

5.1 The Annual General Meeting of the General Body may be called by the President every year after giving written notice of the date, time and place and agenda at such meeting it may transact the following business:

- (a) Consideration of the Annual Report
- (b) Consideration of the Balance Sheet and the Audited Accounts for the previous year
- (c) Adoption of programme content of the following year
- (d) Receipt and consideration of budget for the following year.

5.2 The President may convene a special meeting of the General Body whenever he thinks it necessary to do so with due notice.

5.3 At such Special Meeting of the General Body convened by the President, no business other than the business included in the notice of the meeting shall be conducted except with the permission of President.

6 The Executive Council

6.1 The composition of the Executive Council shall be

- (a) The Lieutenant Governor, A & N Islands, Chairman.
- (b) The Vice-Chairman nominated by the Chairman from among the members of the Executive Council.
- (c) The Chief Secretary.
- (d) The Principal Chief Conservator of Forests.
- (e) The Development Commissioner, A&N Administration.
- (f) The Secretary (TW), A&N Administration.
- (g) The Inspector General of Police, A & N Islands
- (h) The Chairman, State Social Welfare Board
- (i) The Director of Medical & Health Services.
- (j) The Deputy Commissioner, Andamans District.
- (k) The Deputy Commissioner, Nicobars District.
- (l) The Superintending Anthropologist or the Officer-in-Charge of the Anthropological Survey of India at Port Blair.
- (m) The Director (TW), A&N Administration.
- (n) Four members of General Body nominated by the Lieutenant Governor from among non-official experts {under clause 3.1(s)}.
- (o) The Executive Secretary, AAJVS, Member Secretary.

6.2 A person experienced in tribal affairs or representative/s of any organization or department may be co-opted / invited by the Chairman of the Executive Council for any particular meeting or meetings if and when he thinks it is desirable to do so.

6.3 The General Body is empowered to increase or decrease the membership of the Executive Council.

7 Meetings of the Executive Council

7.1 The Executive Council of the Samiti may meet as often as necessary but at-least twice in each year.

7.2 The meeting of the Executive Council may be convened by the Chairman of the Executive Council or any other member of the Executive Council who may be authorized by him in this behalf.

7.3 The meetings of the Executive Council shall be presided over by the Chairman and in his absence by the Vice-Chairman and in the absence of all these a member chosen by the members present shall function as Chairman for that particular meeting.

8 Powers and Functions of the Executive Council

8.1 Subject to the policies, general guidelines and programme laid down by of the General Body, the Executive Council shall be responsible for the management and administration of the affairs of the Samiti in accordance with the rules made there under for the furtherance of the objects and shall have all power which may be necessary or expedient for the purpose, including:

- (a) To formulate and implement schemes to carry out the purposes of the Samiti
- (b) To review and sanction budget estimates.
- (c) To sanction expenditure as may be required for the work of Samiti.
- (d) To invest the funds of the Samiti.
- (e) To borrow on terms and conditions as may be prescribed by the Council from time to time.
- (f) To prescribe salary and conditions of service of Executive Secretary for due and proper implementation of the objects of the Samiti and the resolutions of the Executive Council that may be passed from time to time and carrying orders / directives of the President.
- (g) To create posts, prescribe conditions of service and appoint staff to those posts.

8.2 The Executive Secretary of the Samiti shall be appointed by the President. He shall be in-charge of the management of the Samiti and shall be responsible for carrying out orders / directives of the President and implementation of the resolutions and directives that may be passed by the Executive Council from time to time.

8.3 The Executive Council may by resolution appoint one or more committee or committees or sub-committee or sub-committees or body or bodies for such purposes and with such powers as may be specified by it.

8.4 The Executive Council of the Samiti may, by resolution, delegate severally to the Chairman or the Vice-Chairman or the Executive Secretary or jointly to any two or all three such of its powers as it may deem fit for the conduct of business.

8.5 The Executive Council may frame, alter or repeal bye-laws for the proper conduct of business of the Samiti for which no specific provision has been made in these rules by a majority of not less than three-fifths of the members present.

9 Funds of the Samiti, Accounts and Audit

- 9.1** The funds of the Samiti shall consist of the following:
- (a) Grants made by or through the Central or any State Government.
 - (b) Donations and contributions from other sources, and
 - (c) Other income and receipts of the Samiti.

9.2 The funds of the Samiti shall be deposited in a 'Scheduled' Bank to be named by the Executive Council and approved by the President. All funds received shall be paid into the Samiti's account maintained in such a Bank and shall not be withdrawn except on cheque signed by two persons designated by the Executive Council and approved by the President and authorized to function on their behalf.

9.3 The Samiti shall maintain proper accounts including a balance sheet in such forms as may be prescribed under the Rules.

9.4 The accounts of the Samiti shall be audited annually by such authority or body as may be decided by the Executive Council and any expenditure incurred in connection with the audit of accounts of the Samiti shall be payable by the Samiti. The auditors shall have the right to demand production of books, accounts, vouchers and other documents and papers and to inspect the office of the Samiti.

10 Quorum

10.1 Ten members of the General Body shall constitute quorum at an annual general meeting or a special meeting of the General Body.

10.2 Five members of the Executive Council shall form the quorum at any meeting of the Executive Council.

10.3 If at any meeting of the General Body or Executive Council there is no quorum, the meeting shall stand adjourned to a date and time to be fixed by the Presiding officer. If at any such adjourned meeting there is no quorum, the members present shall constitute the quorum.

- 10.4** A written notice shall be sent to every member of the General Body or Executive Council, as the case may be at the address maintained in the latest roll of members.
- 10.5** Any notice so sent by post shall be deemed to have been duly served and in proving such service, it shall be sufficient to show that the cover containing such notice was properly addressed and put into the post office under a certificate of posting.
- 10.6** Non-receipt of the notice of any meeting of the General Body or Executive Council by any member shall not invalidate the proceedings of the meetings.
- 10.7** The General Body or the Executive Council shall function notwithstanding any vacancy therein and notwithstanding any defect in the appointment, nomination or co-option of any members and no act or proceeding of the General Body or the Executive Council shall be invalidated or nullified merely by reasons only for the existence of any vacancy therein or any defect in the appointment, nomination or co-option of any member(s).
- 10.8** The case of difference of opinion among the members of the General Body or of the Executive Council at any meeting, the opinion of the majority shall prevail. Each member of the General Body, or of the Executive Council, as the case may be including the President shall have one vote and if there be equality of votes on any question the Presiding Officer shall in addition have a casting or second vote.

11 Resolution by Circulation

- 11.1** Any business in respect of which the Chairman is satisfied that the matter is urgent and that it is not possible to hold a meeting of the Executive Council in the near future, may be carried out by circulation amongst all its members and any resolution so circulated and approved by majority of members of the Executive Council shall be effective and binding as if such resolution had been passed by a meeting of the Executive Council.

12 General

- 12.1** All contracts on behalf of the Samiti shall be executed by such person or persons and in such manner as may be prescribed by the Executive Council.
- 12.2** For the purposes of the section – 6 of the Societies Registration Act, 1860 the person in whose name the Samiti may sue or be sued shall be Executive Secretary of the Samiti or such other person as may be appointed for the purpose by the Executive Council.
- 12.3** Any Casual Vacancy in the General Body or in the Executive Council may be filled by the President or the Chairman, as the case may be, and the term of office of member so appointed shall continue only for the remainder of the term of the member in whose place he has been appointed.
- 12.4** Notwithstanding anything contained in these Rules the President / Chairman shall have the power to refer back to the General Body / Executive Council any decision taken or resolution passed by the General Body/Executive Council as the case may be for reconsideration, if in the opinion of the President / Chairman, such decision or resolution is not conducive to or is against the objectives or any one or more of the objectives of the Samiti. If the General Body / Executive Council refuses to re-consider the decision or resolution so referred to it by the President/Chairman or such decision or resolution, even after re-consideration of the General Body/Executive Council is, in the opinion of the President / Chairman, is not conducive to or is against the objective of the Samiti, the decision of the President/ Chairman in that behalf shall be final and binding on the members.

13 Amendment

- 13.1** Subject to the provisions of section – 12 of the Societies Registration Act 1860 (Act XXI of 1860) relating to alteration, extension etc. of purposes of the Society, amendment to the above Rules may be effected by the General Body either at its Ordinary or Special General Body meeting provided due notice of the proposed amendment or amendments is given to the member secretary of the General Body not less than four weeks prior to the Annual General meeting of the General Body or due notice has been given of such amendment or amendments for consideration by a Special meeting of General Body. At such meeting the amendment shall be carried, if not less than two-thirds of the members present and voting, vote in favour of the proposed amendment.

Annexure IV

Medical regime for the Jarawa²⁶

Following is the information in respect of health problems of Jarawa ie one of the primitive tribes of A&N Islands

Respiratory Tract Infections are the commonest morbidity among Jarawas. Since 1998 when the Jarawas became friendly and started accepting treatment for their ailments, the analysis of hospital records show that in the last 5 years, in around 70% of occasions Jarawas were admitted to the hospital for various upper as well as lower respiratory tract infections. Various field survey on Jarawas have also shown that (except for fungal skin infection) respiratory tract infection are the commonest illness of public health importance among them. The health and nutritional team during its survey in 2002 conducted verbal autopsy of the causes of death among Jarawas in the past 50 years and as per their report respiratory tract infection was responsible for 62.7% of deaths among Jarawas. This shows that to improve the health of the Jarawas and to reduce the mortality among them, respiratory tract infection should be diagnosed at the earliest, complications should be detected and treatment should be initiated as early as possible.

It is recommended by the experts from various National Institutes that diagnosis and treatment guidelines are required to be laid down for all three levels of health care among the Jarawas ie first contact when Jarawas are coming out from their habitat, second at Primary Health Centres of the Jarawa area, and third at GB Pant Hospital when referred. Thus, following guidelines for their treatment as suggested at each level.

I The Pharmacist and AAJVS will be trained to recognize minor ailments among the Jarawa by asking following questions:

- (a) Presence of running nose
- (b) Fever
- (c) Cough
- (d) Chest Pain
- (e) Breathlessness
- (f) Pain in the throat (Tonsillitis)
- (g) Difficulty in swallowing (pharyngitis)
- (h) Hoarseness of voice (Laryngitis)

He should record the following:

- (i) Temperature
- (ii) Pulse rate
- (iii) Respiratory rate

Based on the above signs and symptoms he can make out whether the infection is mild and can be managed there itself or the infection is significant and requires shifting of Jarawa to PHC. The illness is mild if following are present:

- Duration of illness < 3 days
- Fever < 101 deg F
- Running nose
- Body ache, headache
- Cough
- Expectoration nil or white
- No breathing difficulty

2 When the Jarawa patients are referred to the nearest PHC

The pharmacist should take the patient to nearby PHC if the Jarawa patient has following symptoms and signs:

- If total duration of symptom is more than 3 days
- If there is no response to symptomatic treatment
- Fever > 101 deg F

²⁶ This is the entire text of the March 3, 2006 communication received from Dr. Wajid Ali Shah, Deputy Director, Tribal Welfare / Health, Directorate of Health Services, A&N Administration in response to a request for a contribution to the dossier

- Expectoration is yellow, green or blood tinged
- Presence of breathing difficulty
- Presence of wheezes
- Any suggestion of tonsillitis, pharyngitis or laryngitis

Respiratory rate:

In children	< 2 months	> 60/min
	2 months – 1 year	> 50/min
	1–5 years	> 30/min

If any of the above signs or symptoms are present the pharmacist will shift the Jarawa to the nearby PHC for examination and treatment by the Medical Officer. The pharmacist will maintain a register of the Jarawa patient treated by him.

3 Treatment guidelines for Primary Health Centre

At Primary Health Centre the Medical Officer will review the history and conduct a detailed clinical examination. He will carry out some investigations like complete blood count, sputum for gram staining / AFB and chest X-Ray wherever indicated. Based on the history, clinical finding and investigation report he will be able to diagnose whether Jarawa patient is suffering from complicated upper respiratory tract infection or a lower respiratory tract infection. Presence of the following will point towards the presence of complicated upper respiratory tract infection:

- (a) Tonsillitis
- (b) Sinusitis
- (c) Pharyngitis
- (d) Acute laryngo tracheal bronchitis
- (e) Acute otitic media

Presence of the following clinical finding will suggest the presence of lower respiratory tract infection:

- Purulent expectoration
- Haemoptysis
- Pleuritic chest pain
- Presence of crepts / wheezes / plural rub / plural effusion / bronchial breath sounds

Based on the above clinical findings, the medical officer will be able to diagnose whether the Jarawa patient is suffering from Simple uncomplicated community acquired pneumonia / bronchopneumonia or he is suffering from complicated pneumonia. Presence of following will suggest complicated pneumonia:

- Presence of effusion
- Presence of lung abscess
- Presence of severity Indices
- RR > 40/min
- Fever > 104 deg F or < 95 deg F
- HR > 120/mt
- Presence of cyanosis
- Altered sensorium
- Hypo tension

4 Treatment guidelines at GB Pant Hospital, Port Blair

On arrival of the patient at GB Pant Hospital the specialist will review the history and carry out a detailed clinical examination. The following investigations can be done based on indications:

- Complete blood counts
- Sputum gram Staining, AFB staining
- Sputum for C&S
- Chest X Ray
- Blood Biochemistry
- Arterial blood gas analysis
- Serological tests

Treatment

- (a) Antibiotics: At tertiary level the treatment should consist of a combination of 3rd generation cephalosporin and aminoglycosides
- (b) Nebulise B. Blocker
- (c) Nebulise Saline
- (d) Oral antipyretics
- (e) Oxygen inhalation
- (f) Drainage of Plural effusion present

5 Prevention

It is always better to prevent the occurrence of an infection, rather than try to treat the patient suffering from it. The following steps of prevention are suggested:

- Take all steps to prevent Jarawa from getting access to tobacco smoking
- Take steps to reduce indoor pollution by smoke
- Vaccinate Jarawas against vaccine preventable diseases

In 2001–02 survey Falciparum Malaria has emerged as a common health problem among the Jarawas. The health team of this directorate have detected HBV positive, diarrhea among Jarawas, but the percentage of the disease is not alarm(ing) and the team did not find chronic liver disease, cirrhosis, hepatocellular carcinoma etc.

The Jarawas use their herbal medicines for following:

- (a) Pig gore injuries
- (b) Arrow injuries
- (c) Fall from height
- (d) Cuts and abrasion due to corals etc
- (e) Thorn pricks, fish bone pricks
- (f) Common fever
- (g) Skin Infection

The above mentioned information are subject to the preliminary investigation done by periphery level and survey conducted by Directorate of Health Services.

Sd /
Dr. Wajid Ali Shah
Deputy Director (TH)

Annexure V

Jarawa Camps in the Forest²⁷

No.	Jarawa camp	Location	Type of camp	Studied by
Boiab				
1	Jhaukona camp	11°42'58.6"N 92°34'31.2"E	Coastal, Temporary	An.S.I., ZSI, BSI I
2	Eno	11°43'04.6"N 92°33'13.0"E	Coastal, Temporary	An.S.I.
3	Tatha-etha	11°42'28.0"N 92°34'38.1"E	Forest, Temporary	An.S.I., BSI, ZSI
4	Tothi-duba	11°42'51.5"N 92°34'20.6"E	Forest, Temporary	An.S.I., BSI, ZSI
5	Tinatho	11°57'08.2"N 92°40'57.4"E	Forest, Temporary	An.S.I., BSI, ZSI
6	Lapaitala	11°44'15.9"N 92°36'26.8"E	Forest, Temporary	An.S.I., BSI, ZSI
7	Alugithale	11°59'34"N 92°42'00.2"E	Forest, Temporary	An.S.I.
8	Ginai-talla	11°44'58.0"N 92°36'52.7"E	Forest, Temporary	An.S.I.
9	Thapiliem	11°56'56.0"N 92°41'02.2"E	Forest, Temporary	An.S.I.
11	Eanathilia	11°42'45.7"N 92°34'28.2"E	Coastal, Temporary	An.S.I.
12	Gangnapo	11°42'35.9"N 92°35'47.5"E	Forest, Semi-permanent	An.S.I., BSI, ZSI
13	Pecheleg	11°59'28.8"N 92°37'02.1"E	Coastal, Semi-permanent	An.S.I., BSI, ZSI
14	Nono-uge	11°47'0.2"N 92°33'13.0"E	Coastal, Semi-permanent	An.S.I.
15	We-shekup	11°46'13.8"N 92°32'49.0"E	Coastal, Semi-permanent	An.S.I.
16	Wag-tha-waw	11°43'33.3"N 92°33'57.6"E	Coastal, Temporary	An.S.I.
17	Totha-wikiji	11°48'56.7"N 92°33'34.6"E	Coastal, Temporary	An.S.I.
18	Inen-y	11°43'58.8"N 92°36'55.2"E	Coastal, Semi-permanent	An.S.I., BSI, ZSI
19	Muth-tuweya	11°54'18.2"N 92°32'9.3"E	-	BSI, ZSI
Thidong				
20	Tahato	12°43'58.8"N 92°36'55.2"E	Forest, Permanent	An.S.I., BSI, ZSI
21	Tuhi	12°43'58.8"N 92°36'55.2"E	Forest, Permanent	An.S.I., ZSI
22	Tuterbelo	12°7'37.0"N 92°43'16.7"E	Forest, Semi-permanent	An.S.I., BSI, ZSI
23	Mimun	12°2'33.5"N 92°42'6.0"E	Forest, Temporary	An.S.I., ZSI
24	Inkamaha	12°11'59.8"N 92°39'37.4"E	Coastal, Semi-permanent	An.S.I., ZSI
25	Hutukunu	12°12'1.3"N 92°39'24.1"E	Coastal, Semi-permanent	An.S.I., ZSI
26	Tanaoben	12°8'52.6"N 92°44'20.5"E	Coastal, Semi-permanent	An.S.I., ZSI
27	Otathamele	12°9'23.1"N 92°44'50.1"E	Forest, Temporary	An.S.I.
28	Moulahuchu	12°4'55.7"N 92°42'54.4"E	Forest, Temporary	An.S.I., ZSI
29	Lebaetala	12°14'22.7"N 92°42'8.3"E	Coastal, Semi-permanent	An.S.I., BSI, ZSI
30	Katabobo	12°14'0.5"N 92°42'29.0"E	Forest, Temporary	An.S.I.
31	Thulug	12°14'32.4"N 92°41'58.0"E	Forest, Temporary	An.S.I.
32	Thota-ulio	12°11'19.9"N 92°38'55.3"E	Forest, Temporary	An.S.I.

²⁷ From the Report of the Expert Committee on the Jarawas of Andaman Islands, submitted to the Kolkata High Court in July 2003

No.	Jarawa Camp	Location	Type of camp	Studied by
33	Motebute	12°10'29.1"N 92°38'45.1"E	Coastal, Permanent	An.S.I., BSI, ZSI
34	Alo-ethela	12°6'55.2"N 92°42'50.0"E	Forest, Temporary	An.S.I., ZSI
Tanmad				
35	Daag-totembu	12°18'22.11"N 92°43'28.7"E	Forest, Semi-permanent	An.S.I., BSI, ZSI
36	Oleg	12°18'2.9"N 92°43'22.5"E	Coastal, Semi-permanent	An.S.I., BSI, ZSI
37	Hochu	12°22'12.6"N 92°42'20.9"E	Coastal, Semi-permanent	An.S.I.
38	Hiulele	12°22'52.6"N 92°42'17.9"E	Coastal, Semi-permanent	An.S.I., ZSI
39	Uli	12°26'50.0"N 92°46'29.3"E	Coastal, Semi-permanent	An.S.I.
40	Tanmad	12°11'43.9"N 92°43'0.0"E	Coastal, Semi-permanent	An.S.I., BSI, ZSI
41	Dhaninallah	12°27'42.1"N 92°44'54.0"E	Forest, Temporary	An.S.I., BSI, ZSI
42	Ulli-a	12°26'56.2"N 92°46'31.6"E	Forest, Semi-permanent	An.S.I., ZSI
43	Elag-wae	12°45'11.5"N 92°17'50.1"E	Forest, Temporary	An.S.I.
44	Elag-O	12°17'49.1"N 92°45'12.2"E	Coastal, Temporary	An.S.I., BSI, ZSI
45	Kaushalya	12°31'32.6"N 92°49'50.8"E	Non-Jarawa village	An.S.I., BSI, ZSI
46	Bamboo Tikri	12°19'59.8"N 92°45'39.9"E	Non-Jarawa village	An.S.I., BSI
47	Southern part of Spike Is.	12°14'32.9"N 92°42'24.3"E	Coast, Uninhabited	ZSI
48	Tentul Tikri	12°14'43.6"N 92°41'51.4"E	Coast, Uninhabited	ZSI
49	Mohua Tikri	12°31'56.4"N 92°40'45.1"E	Coast, Uninhabited	ZSI
50	Motieta	12°19'40.6"N 92°42'32.5"E	Coastal, Semi-permanent	An.S.I., ZSI

Key:

An.S.I. – Anthropological Survey of India,

BSI – Botanical Survey of India

ZSI – Zoological Survey of India

Annexure VI

Traffic on the Andaman Trunk Road²⁸

Richa Dhanju²⁹

METHODOLOGY

To determine the volume of traffic on the Andaman Trunk Road, the records maintained at the Jarawa Reserve Check posts were used. The register maintained at the check post is in the following format:

Date	Vehicle registration No.	Type of vehicle	Name of driver
Coming from	Going to	No. of passengers	Cargo

Data sheets were prepared for 96 days of the year 2002–03, 6 days of Nov. 15 days of Dec. 02 and 31 days of Jan 28 days of Feb. and 16 days of March 03. The data was fed into a computer and tables prepared. The average per day values was calculated. To determine the composition of the traffic, primary data were collected through filling up of a questionnaire in respect of every person traveling on a single day. Seven volunteers traveled in the buses leaving Port Blair on the 16th April, 03 and got the questionnaire completed.

The sample size was 500 passengers.

The same process was repeated on an inter-island vessel sailing from Port Blair to Rangat via Havelock, Neil and Straight Islands. The data collected were fed into the computer and tables prepared for each type of vehicles, categories of travelers, frequency of travel and so on. Average per day numbers were calculated. By extrapolating these values to the total number of vehicles using the road, the final results were completed. The list of ships, passenger fare structure, volume of passenger and cargo were collected from the records of the Directorate of Shipping Services and the Port Management Board. The basic statistics like population, distance and so on were taken from various publication of the A & N Administration.

²⁸ This paper is an extract from a larger report prepared by the author in 2003. The month long study had been undertaken as part of an internship with the Society for Andaman and Nicobar Ecology (SANE), Port Blair, in completion of the authors Master's Degree in Social Work (MSW) from the Tata Institute of Social Sciences, Mumbai

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Table 1 / Sample Size – All vehicles on 96 days

- Nov '02 - 6 Days
- Dec '02 - 15 Days
- Jan '03 - 31 Days
- Feb '03 - 28 Days
- March '03 - 16 Days
- Traffic Flow On ATR

	Vehicles				Passengers		
Month	Type	No. heading North	No. heading South	Total vehicles	No. heading North	No. heading South	Total passengers
Nov. 02	Ambulance	03	00	03	13	00	13
Dec. 02	Ambulance	04	06	10	12	55	67
Jan. 03	Ambulance	10	08	18	47	24	71
Feb. 03	Ambulance	08	09	17	25	26	51
Mar. 03	Ambulance	06	06	12	19	14	33
Total		31	29	60	116	119	235
Daily Avg.				0.62			2.44
Nov. 02	Bus	56	49	105	1702	1488	3190
Dec. 02	Bus	185	183	368	5401	5694	11095
Jan. 03	Bus	408	395	803	11974	11672	23646
Feb. 03	Bus	353	356	709	11751	11651	23402
Mar. 03	Bus	227	221	448	6325	6486	12811
Total		1229	1204	2344	37153	36991	74144
Daily Avg.				25.34			772.33
Nov. 02	Govt. Car	07	02	09	37	11	48
Dec. 02	Govt. Car	64	64	128	279	269	548
Jan. 03	Govt. Car	60	54	114	185	161	346
Feb. 03	Govt. Car	83	83	166	333	312	645
Mar. 03	Govt. Car	42	36	78	141	145	286
Total		256	239	495	975	898	1873
Daily Avg.				5.16			19.51
Nov. 02	Truck	22	27	49	72	51	123
Dec. 02	Truck	182	157	339	774	371	1145
Jan. 03	Truck	395	356	751	1952	686	2638
Feb. 03	Truck	368	334	702	1901	1030	2931
Mar. 03	Truck	288	279	567	902	757	1659
Total		1255	1153	2408	5601	2895	8496
Daily Avg.		13.07	12.01	25.08	58.34	30.16	88.5

Table 2 / Passenger Statistics

Sample Size: 500 passengers traveling on the 16th day of April 2003

Passenger age		1-17 yrs		18-60 yrs		60yrs or above		Total %
Total		133	26.6%	359	71.8%	8	1.6%	
Heading North		60	12%	141	28.2%	5	1%	
Heading South		73	14.5%	218	43.7%	3	0.6%	
Frequency	1-3/week	2	0.4%	37	7.4%			7.8%
	1-3/month	14	2.8%	150	30%	3	0.6%	33.4%
	1-6/year	71	14.2%	97	19.4%	4	0.8%	34.4%
	Once	45	9%	75	15%	1	0.2%	24.2%
Purpose	Home	32	6.4%	67	13.4%	2	0.4%	20.2%
	Work	4	0.8%	105	21%	1	0.2%	22%
	Marketing	4	0.8%	21	4.2%	2	0.4%	5.4%
	Court Case			1	0.2%			0.2%
	Med Treat	2	0.4%	20	4%			4.4%
	Edu	6	1.2%	2	0.4%			1.6%
	Tourist	34	6.8%	52	17.8%			24.6%
	Others	40	8%	66	13.2%	1	0.2%	21.4%
	Meet Rels	10	2%	23	4.6%	3	0.6%	7.2%
Profession	Govt. Serv	6	1.2%	145	28.6%	2	0.4%	30.2%
	Pvt. Serv			71	14.2%			14.2%
	Business			32	6.4%	1	0.2%	6.6%
	Farmer			12	2.4%			2.4%
	Student	78	15.6%	18	3.6%			19.2%
	Housewife	2	0.4%	50	10%	1	0.2%	10.6%
	Tourist	4	0.8%	10	2%			2.8%
	Others	42	8.4%	21	4.2%	5	1%	13.6%
Destination	Port Blair	58	11.6%	137	27.4%			39%
	Baratang	24	4.8%	67	13.4%	1	0.2%	18.4%
	Kadamtala	2	0.4%	47	9.4%	1	0.2%	10%
	Rangat	20	4%	56	10.6%			14.6%
	Diglipur	8	1.6%	12	2.4%	1	0.2%	4.2%
	Mayabundar	6	1.2%	24	4.8%			6%
	Other	14	2.8%	22	4.4%			7.2%

Table 3 / Jarawa movement on the ATR

Month	Male	Female	Boys	Girls	Total
Nov.02: 9 days	103	58	106	65	332
Dec.02: 22 days	180	104	247	118	649
Jan 03: 19 days	132	91	191	93	507
Feb.03: 28 days	120	66	221	81	488
March 03: 15 days	62	40	107	43	252
93 days	597	359	872	400	2228
Daily Av.	6.42	3.86	9.38	4.30	24

- * 10.42% of the entire Jarawa Population go for a ride on the bus everyday
- * 26.8% of the travelers are adult males, 16.1% are adult females, 39.06% are boys and 17.95% are girls
- * Or 57.14% of the Jarawa travelers are minors
- * Of the Jarawa travelers 65.79% are males and only 34.21% are females

Table 4 / Frequency Of Travel Of Different Categories Of Users

Profession of passenger	1-3 /week	1-3/month	1-6/year	Once only
Business	3.15%	21.89%	46.88%	28.08%
Farmer			100%	
Housewife	18.87%	47.17%	9.46%	24.5%
Student	6.25%	42.74%	26.01%	25%
Private ser.	9.59%	28.74%	39.68%	23.47%
Govt. ser.	4.55%	19.49%	42.19%	33.78%

SHIPPING INFORMATION

Table 5 / Available Vessels

S.No	Mainland	Construction year	Route	Capacity	
				Passenger	Cargo
(metric tonnes)					
1.	MV Akbar	1971	Chennai/Vizag	1500	1500
2.	MV Nicobar	1991	Calcutta	1200	1500
3.	MV Nancowry	1992	Chennai	1200	1500
4.	MV Swaraj Dweep	1999	Vizag/Chennai	1200	1500
5.	M/v Harshavardhana	1975	Calcutta/Vizag/inter Island	750	1500
			Total	5850	7500
	Inter Island				
1.	M.V Sentinal	1982	P/ Blair/Campbell Bay	300	200
2.	MV Chowra	1984	P/Blair/Campbell Bay	200	300
3.	TSS Yerewa	1964	P/Blair/Car Nicobar/Campbell Bay	200	50
4.	MV Dering	1992	P/Blair/H/Bay/Diglipur	300	-
			Total	1100	450
	Cargo Vessels				
1.	MV Vanvikas	1986	-	-	120
2.	MV Mohwa	1991	-	-	110
3.	MV Badam	1992	-	-	110
4.	MV Garjan	1989	-	-	200
5.	MV Padauck	1989	-	-	200
6.	MT Dweep Shakti	1989	-	-	200
			Total		940
	Foreshore Ferry				
1.	MV Galathia	1993	Foreshore Services	250	-
2.	MV Kalpong	1991	-	250	-
3.	MV Triveni	1978	-	150	60
4.	MV Ramanujam	1972	Port Blair/Rangat	600	-
5.	MV Rangat	2001	Port Blair/Havelock	100	-
6.	MV Baratang	2002	Port Blair/Havelock	100	-
7.	MV Kamorta	2002	-	75	50
8.	MV Onge	2002	-	75	50
9.	MV Pilomilo	2002	-	75	50
10.	MV Katchal	2003	-	75	50
			Total	1750	260

Table 5 / Available Vessels (contd)

S. No.	Mainland	Construction year	Route	Capacity	
				Passenger	Cargo
	Vehicle Ferry			(No. vehicles)	
1.	MV Phillobhabi	1993	Harbour ferry	99	5
2.	MV Pillopanja	1996	Port Blair/Diglipur	99	5
3.	MV Pillokunji	1995	Forshore Services	99	5
4.	MV Mus	1997	Foreshore Service	99	5
5.	MV Panchavati	1996	P/Blair/Diglipur	50	5
6.	MV Kadamtala	1978	ATR	75	4
7.	MV Austin I	1994	-	50	2
8.	MV Austin II	1994	-	50	2
9.	MV Austin III	1996	-	50	2
10.	MV Austin IV	1998	Uttara	50	2
11.	MV Austin V	2001	Uttara	50	2
	Harbour Ferry				
1.	MV Chinkara	1975	-	75	-
2.	MV Juhi	1991	Harbour Ferry	100	-
3.	MV Bela	1991	Harbour Ferry	100	-
4.	MV Spike	1992	Harbour Ferry	100	-
5.	MV Barren	1992	Harbour Ferry	100	-
6.	MV Lawrence	1992	Harbour Ferry	100	-
7.	MV Maina	1992	Long Island	100	-
8.	MV Bulbul	1992	Long Island	100	-
9.	MV Hawabill	1993	Nancowry	100	-
10.	MV Bhansingh	1997	Ross Island	55	-
11.	MV Indubhushan	1997	Harbour Ferry	55	-
12.	MV Ramrakha	1999	Mayabundar	55	-
13.	MV MahavirSingh	1999	Mayabundar	55	-
14.	MV Gomati	1978	-	200	-
15.	MV Tapi	1977	-	200	-
			Total	1495	

Table 5 / Available Vessels (contd)

S. No.	Mainland	Construction year	Route	Capacity	
				Passenger	Cargo
	Motor Launch				
1.	ML Ranjit	1992	-	25	-
2.	ML Chakoor	1978	Mayabundar/N/Cowry	50	-
3.	ML Seagul	1963	Diglipur	40	-
4.	ML Peema	2001	Campbell Bay	50	-
5.	ML Maya	2001	Nancowry	50	-
6.	ML Kamal	2001	Car Nicobar	50	-
7.	ML Ramakrishna	2002	Diglipur	50	-
8.	ML Durgaprasad	2002	Car Nicobar	50	-
			Total	365	
	VIP/Touring Vessel				
1.	MV Tarmugli	1969	-	50	-
2.	MV Saddle	1991	-	25	-
3.	MV Mohit	1999	-	40	-
4.	MV Narcandam	2000	-	35	-
5.	MV Shompen	2001	-	25	-
6.	MV Ranjit	-	-	?	-
7.	MV Andaman Rani	-	-	?	-

Table 6 / Passenger Traffic on the sea route between Port Blair and Diglipur

Route	No. of passengers
Port Blair – Neil Island	20467
Port Blair – Havelock	81689
Port Blair – Strait Island	592
Port Blair – Long Island	3758
Port Blair – Kadamtala	147
Port Blair – Rangat	5960
Port Blair – Mayabundar	37
Port Blair – Diglipur	28970

Table 7 / Cargo movement between Port Blair and Rangat

Serial No.	Type of Cargo	Rangat – Port Blair	Port Blair – Rangat
1	POL Products		3662.130KL
2	Bitumen		248.250 MT
3	Cement		2005 MT
4	Sawn Timber	134.288CBM	
5	Stone Chips		550 MT
6	Rice		1665 MT
7	Sugar		155 MT
8	Wheat		220 MT
9	Fertilizer inished		13.89 MT
10	Vegetables	17.26MT	
11	Finished Steel		130.325 MT
12	Copra	4.2 MT	

Total Cargo (metric tonnes)

Port Blair – Rangat: 4987.46
 Rangat – Port Blair: 21.46

Total Cargo (KL)

Port Blair – Rangat: 3662.130
 Rangat – Port Blair: Nil

Total Cargo (CBM)

Port Blair – Rangat: Nil
 Rangat – Port Blair: 134.288

CARGO MOVEMENT

The 25.08 average daily trips by truck, half of which are empty, would carry 13x 5 MT of cargo or, 65 MT per day. While the data of the material for road building/repair are not available, it can be conservatively estimated at one third of that. So, real cargo moved would be 43 MT per day or 15695 MT or 3139 truckloads per year. The cargo movement by ship to Rangat during 2001–02 was 8805.3 MT. The cargo ships available has more than sufficient capacity to move this.

ANALYSIS OF TRAFFIC DATA ON ATR

On an average, 24.08 private cars carrying 100.07 passengers and 25.34 buses carrying 772.33 passengers use the ATR daily including both ways. In addition, 5.16 Govt. vehicles carry 19.51 passengers on official business. 0.62 ambulances carry 2.44 passengers daily. 25.8 trucks use the road carrying 88.5 passengers, 3.53 passengers per truck on an average. Most trucks carry a load one way and return empty. The Port Blair bound (up) trucks carry 4.46 passengers on an average while the down trucks carry only 2.51 passengers. The down trucks normally carry commercial cargo for outstations, apart from carrying construction material for repair of the ATR. These normally do not carry labourers. The data reveal that some of the up trucks carry a large number of labourers probably to ensure quick loading and unloading. It is possible that these trucks carry contraband like sand or timber.

Of the 891.91 passengers per day using the road, not counting the ambulances and trucks, 252.75 (28.33%) are Govt. Servants; 109.67 (12.3%) are in private service; 50.95 (17.5%) run small businesses; 18.54 (2.08%) are farmers, 148.3 (15.61%) are students, 81.87 (9.18%) are housewives; 121.7 (13.64%) are tourists, others make up the rest. The category students also include students from the mainland who came as tourists. It is interesting to note that two housewives are with in the age group of 0–17. 7.8% of the bus travelers (772.33 passengers) travel once to thrice a week, 33.4% travel once to thrice a month, 34.4% travel once to six time per year and 24.2% are one-time travelers only. An overwhelming 42.2% use the road for travel from home to place of work and vice-versa, 5.4% use the road for marketing, 0.2% to attend Court cases, 4.4% for medical treatment, 1.6% for travel to and from educational institutions, 24.6% for touring, 7.2% to visit relatives. The rest travel for other purposes. 26.6% of the travelers are between 0–17 years, 71.8% between 18–60 years and 1.6% are above 60 years of age. 39% travel to Port Blair, 18.4% to Baratang, 10% to Kadamtala, 14.6% to Rangat, 6% to Mayabundar and 4.2% to Diglipur. The rest travel to other destinations.

While 100% of the farmers use the road between 1 to 6 times a year, 18.87% housewives use the road 1–3 times a week, 47.17% 1 to 3 times a month, 9.46% 1 to 6 times a year and 24.5% once only. Only 3.15% of small businessmen use the road

1 to 3 times a week, 21.86% 1 to 3 times a month, 9.46% 1 to 6 times a year and the rest use it once only (see Table 4) .

The biggest users of the road are the Govt., babus, tourists, and Jarawas. The farmers are the least dependent on the road. There does not appear to be any threat to the livelihood of the rural people on account of the closure of the road. The only jobs at stake would be those of the drivers and cleaners.

The average traffic would be substantially less if the entire year's data were analysed. During the rainy season, there are no tourists. During vacation period the passenger traffic get drastically reduced not only because of the absence of the students and teachers, but also a large number of govt. servants take their annual leave during that period. This annual exodus is so large that in years of severe water scarcity, the Administration times the vacation to coincide with low levels in water reservoirs.

THE SEA ROUTE

Prior to commissioning of the road, all passenger traffic to Baratang, Kadamtala, Rangat and beyond was by the sea route. In recent years, the people of these areas do not get an opportunity to take the sea route. During 1.10.2002 to 31st March 2003, there were a total of 114 passenger boat sailings to Rangat. But not one of the sailings was to Rangat direct or to Rangat by the shortest route via Baratang and Kadamtala. Of the 114 sailings, 55 were via Neil Island, Havelock, Strait Island and Long Island to Rangat, which takes 11 hours to cover the distance as against 4-5 hours if the boat went via Baratang and Kadamtala. The other 59 sailings were to Rangat via Havelock Island again a much longer route. The frequency is not bad, 118 sailing in 180 days. In spite of the constraints mentioned above the number of passengers traveling between the following stations by boat, was significant during the 11 months (Apr. 02 – March 03) for which data could be accessed.

The number of passengers to Diglipur shows that people are not really averse to travel by boat. Although Diglipur is connected by the ATR, the boat journey is faster, cheaper and therefore more convenient to the people. Boat traffic to Mayabundar is poor not because the people avoid the boats but due to the infrequency of the boat service. The heavy traffic to Havelock is because of the tourists. Most tourists coming to Andamans like to see the Jarawas and Havelock. To save time, many go to Havelock first, then to Rangat by boat and return by the road to Port Blair.

ATR: THE COST

- * The annual routine maintenance including special repairs costs around Rs. 45 Crores. 450 millions (approx)
- * The road requires 38 Metric Tonnes of Bitumen per Kilometre for maintenance
- * It takes 88 Cords of firewood [approximately 249.04 cum.] to heat the bitumen.
- * Every year, 20% of the length only is taken up for repairs. So, the total firewood used is 12,452 cum.
- * Andaman Public Works Department does not issue this firewood to the contractor.
- * Logging of wood for construction purposes is visible within the repair sites.
- * The Check Posts have no records of firewood movement into the reserved area.
- * At a nominal cost of Rs.2500 per cum. the total cost works out to Rs. 3.50 Crores. Approx.)

CONCLUSION

The Probable maximum total numbers of passenger trips on the ATR can be estimated at 365x891.91 or 3,25,547. Dividing the annual cost of repairs, 45 crores, by this figure, the cost per passenger trip works out to Rs. 1,382.28. One needs to ask oneself is this an affordable cost?

The closure of the road will result in a direct saving of 45 crores annually which could be gainfully utilized to improving the quality of life of the Islanders or to improve the inter-island shipping. The large police force deployed on the road will also not be necessary and would result in much saving. Upon closure of the road new diseases will, hopefully, not reach this isolated community resulting in substantial saving of medical personnel time. The 3.81 crore worth of firewood required for maintenance of the road will be saved resulting in healing the bold sores in the reserve forest. Huge quantity of sand that is spread on road surface every time bitumen is spread will be saved and will result in increase of earning for beach tourism by protecting the beaches.

The 3,25,547 passenger trips on the road can be boiled down to 1,62,774 passengers, since whoever goes also returns. Let us take a look at who they are and how dependant they are on the road. Of the 1,62,774 round trips, 4380 (2.69%) are made by the Jarawa and 40,042 (24.6%) are tourists. The Administration never mentions these to justify the continuance of the road. That leaves 72.71% of the road users. 3561 round trips (2.19%) are made by Govt. Officials on duty by Govt. Vehicles. They can always travel by the 7 vessels reserved for their tour out of the 35 vessels that Administration has. 68,691 (42.2%) round trips are accounted for by persons in Govt. and private service to travel between house and place of work. The balance 46,010 round trips only (28.32%) are made by the Islanders, i.e., farmers, students, housewives and fisherman etc., whose 'livelihood' is frequently cited by the pro-road lobby as the ground for keeping the road open.

Annexure VII

Conflict incidents involving the Jarawas – a Compilation³⁰

Manish Chandi³¹

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
1	1789-1790				Lt Hyde Colebrooke visited the Andamans, met native islanders and recorded some of their language. Later on the language was found to belong to the Jarawa.
2	1790				Andamanese taken to be exhibited in Calcutta, Fort William. In all probability they were the then friendly Jarawa.
3	1863				Expedition to Jarawa area – Rev. Corbyn.
4	1872				
5	1873	1			Dhanikhari
6	1875	1	6 Convicts killed.	2 captured	The expedition was led by Goodur a convict from Viper Island, during the Chief Commissioner, D.M Stewart's time. The two Jarawa were an old man and a pregnant woman.
7	1876				3 expeditions into Jarawa territory
8	1877				1 expedition
9	1878	1	1	3 captured	One woman and two small children captured near Constance Bay.
10	1879	1	9 captured & released, 2 died.		
11	1880	1			Andamanese camp attacked
12	1881				1 unsuccessful expedition into the Jarawa area.
13	1882	1	4 convicts killed.		
14	1883	1	5 convicts killed	1 woman captured	1883–1884: expeditions into Jarawa areas. RC Temple, 1931 Census.
15	1884	4		1 killed/ 4 men & 1 woman captured, released, 1 wounded.	Talai – a Jarawa man was captured and released. (MVP)

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No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
16	1885	2	2 convicts killed	2 released	Of the two Jarawa captured, one was named Ike, he was released on the west coast of South Andaman at a place named after him – Ike bay. He was later seen during one of the Jarawa attacks on the settlement.
17	1887	1	1 injured		
18	1888	4	3 killed, 1 escaped		
19	1889	1	1 injured		
20	1890	4	3 convicts killed	2 killed	
21	1891	1	1 convict injured		
22	1892	1			1 Andamanese girl killed
23	1893	1			1 Andamanese killed
24	1894				1 Andamanese killed
25	1895	1	2 convicts killed	2 captured	
26	1896	2		1 wounded	
27	1897	1	3 convicts killed, 3 wounded	4 wounded	
28	1898	1	1 police, 1 convict injured		
29	1899	1	3 wounded	1 killed	
30	1901	1	3 convicts killed, 2 wounded	1 killed	
31	1902	1	2 convicts, 1 officer killed	7 captured	
32	1903	1			1 expedition to search for Jarawas
33	1903-1910	6 attacks	5 persons killed		
34	1917	1	1 killed		Expedition led by D.C. Morgan into Jarawa territory as a reprisal for the many raids and for holding up a train on the tram line. 2 Jarawa were shot at.
35	1920	1	5 killed, 3 wounded		
36	1921	?			Several raids by the Jarawa. Expedition into Jarawa territory by C.G.Fields (21 convict settlers killed by the Jarawa.)
37	1922	1	1 settler killed	2 killed	
38	1923	?	7 settlers killed		
39	1925		6 settlers killed		

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
40	1926	?	2 convicts, 1 wounded	29 killed	Large scale punitive expeditions against the Jarawa in South Andaman. This expedition was led by Capt. West in 1925 and 1926 and resulted in the death of an officer, Percy Vaux, some Andamanese and the two convicts.
41	1930-1939		12 settlers killed	7 killed, 13 wounded, 6 captured & released	Continuation of punitive expeditions from time to time. (Ref: L.P. Mathur)
42	1940-1946				This is a 'gray' period during the Japanese occupation of the Islands. Some reports mention the occasional bombing of some Jarawa areas in South Andaman's as reprisals against Jarawa skirmishes with the Japanese authority in the middle of World War II. During this period a British officer, McCarthy along with his trusted Indian subordinates entered the islands to spy on Japanese activity by arriving on a submarine from Ceylon into Port Campbell and reaching the edge of Caddlegunj village from this jungle – the core area of Jarawa habitation. <i>Pers comm.</i> Anjalus Michael, Forest Ranger Retd. Chitrakoot village, Middle Andaman.
43	13-11-46 1300 hrs				Miletilak – Bush Police part went in search of elephant Po-to-meh, on 12 th Nov. and came across elephant with 26 arrow wounds- about 30 Jarawas were estimated to be present.
44	19-1-47 4pm				Putatang Jig – An elephant searching party found their elephant with 18 arrow wounds, from footprints it was estimated that 25 Jarawas were present.
45	12-3-48 9 pm				Jirkatang – Party of Jarawas appeared at Jirkatang camp, but disappeared when some shots were fired.
46	14-9-48 3pm		1		Betapur (Rangat) – A party of Jarawas raided the survey camp and Burmese coolly San Mwein was killed. Estimated number of Jarawas was about 30.
47	19-10-48			1	Flat Bay (Baratang) – Joseph Gupta, Pooviah and Belliappa left for Spike Island on 29 th Oct, when they came across 3 men and 1 boy (Jarawas). In an encounter with this party one Jarawa was shot dead while escaping and the rest were captured.
48	1-4-1949		1		Bajalungta – Three Jarawas attacked Telegu coolies of which one was killed on the spot while the others managed to escape.
49	7-5-52 1530 hrs		1-1		Rampur (Mayabunder) – Jarawas attacked two company mazdoors who had gone to cut cane in the jungle; one was injured, & the other was killed.
50	22-11-52 1530 hrs		2-1		Parlobjig – About 30 Jarawas attacked the laborers while working. One was killed on the spot while two others were injured. Of the injured one succumbed to his injuries.
51	30-01-54				Tugapur / Mayabunder – A mahout of PC Ray company reported that while searching for his elephant, he saw 3 Jarawas aiming arrows at him, but he managed to escape.
52	22-10-54		2		Middle Strait – 40-50 Jarawas surrounded a mangrove tree cutting party and shot arrows wounding two mazdoors.
53	18-11-54 0600 hrs		1	?	Tirur – A party consisting of 25-30 Jarawas attacked an outpost situated east of Tirur. Exchange of fire continued for 20-30 minutes; An arrow struck one Bush Policeman on his right elbow. Some Jarawas were injured by gunshots.
54	18-11-54 1400 hrs				Jarawa Creek, Baratang Is. Some Jarawas appeared at Jarawa creek, but ran away after Bush Police fired 2-3 rounds.
55	25-11-54 1630 hrs				Rampur / Mayabunder – Many Bush Police reported that they came across Jarawa while patrolling. The Jarawas attacked the party, but no casualty was reported on either side.
56	19-8-55 2000 hrs		1		Tugapur / Mayabunder – Jarawa entered refugee camp no: 6 and attacked one refugee and struck off his left hand.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
57	4-12-55 1500 hrs			?	Karmatang, Mayabunder – About 40–50 Jarawas encircled the Bush Police outpost No. 10, Bush Police fired 5 rounds. On hearing gunshots, the Jarawa left the site. The spot was inspected by the B.P men and found 3 arrows, two with bloodstains and stains on the ground were.
58	January 1956.				Sandy Island, Cape Barwell, north of Tirur – Jarawas attacked the gift dropping party consisting of Supdt. Of Police, Inspector of Bush Police, and B.P man Hladin had arrived at the spot by an outboard dingy. The Jarawas shot several arrows at the party. The party fired a Sten gun to frighten them, but was of no use. The party moved off by dinghy, the Jarawas appeared approximately 8 in number.
59	9-3-56		1		Charlungta / Rangat – Jarawa attacked one Forest Protection Force mazdoor and injured him while he had gone to defecate, leaving his musket in the police camp.
60	30-10-56		1	3	Kalsi BP post – Some Jarawas suddenly attacked three Bush Policemen having a wash near their outpost. One bBush Policeman was struck by three arrows, one below the knee, and two in the buttocks. Bush Police fired killing three Jarawas. The body of one Jarawa was brought to the BP camp while the Jarawas took the other two.
61	3-11-1957 1600 hrs				Chuglumghum / Mayabunder – Andamanese BP, Loka, reported that while patrolling with Maaro, Khalia, Kota, and young son of Maaro, three Jarawas shot arrows from close range. On opening fire in self-defense they ran away. None of the Bush Policemen were injured, and they collected 16 arrows.
62	1958				Parnasala, Rangat – A settler of the village complained that about 0200 hrs, Jarawas attacked his house while he was asleep. Two arrows were found stuck in the bamboo mat.
63	20-3-59		1		Oral kaicha, Baratang Island – A forest watchman breaking stones was attacked at 11.15 pm and received arrow injuries in the thigh and leg. Footprints of five Jarawas were seen the next day.
64	18-4-60		1		Kalsi, Outpost No. 6 – About a mile away from Bush Police post Kalsi No: 6, some Bush Police men were cleaning plates when suddenly Jarawas appeared and killed one of them. One musket No: 19420, Bull cartridges- 5, an axe, and dah were taken away by the Jarawas. One arrow of the Jarawas was found at the spot.
65	21-10-60		2		Raolungta, Tirur – Three Bush policemen on patrolling duty were attacked by Jarawas. Jarawas reportedly killed two men; the third that escaped with two muskets had injuries on his left leg and was shot above the left nipple. One dah was lost.
66	27-1-60 0900 hrs		2		Louis Inlet Bay – Jarawas killed two Karens, an old man and woman of Webi village at Louis inlet bay. Four of them had gone fishing and had spent the night of the 26 th in the area. On the morning of 27 th they cooked their meals and started to eat by about 9 am. Suddenly they were attacked; the two boys ran away and escaped, while the old man and woman were killed in the water by arrows and their bodies removed by the Jarawas.
67	12-2-61		1		Jirkatang – Jarawas in the forest near Jirkatang camp killed a Ranchi mazdoor of the Forest camp. On Sunday he left the camp between 4-5 am with a dah and did not return. The following morning a search party located the dead body under a tree by the side of a buttress about a mile north in dense jungle. His body pinned with arrows was found lying with his back on the ground. Nine arrows were found embedded in his body, and eight marks of punctured wounds.
68	December 1961		1		Hanspuri, Mayabunder – A Bush Police party consisting of two men armed with muskets was attacked in an encounter with the Jarawas at about 1100 hrs about 2 1/2 miles from BP post Hanspuri No: 2. A constable received wounds on the left of his chest.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
69	29-12-62		1		Putatang, CD nullah – Jarawas attacked a member of the Forest Protection Force. One metal arrowhead was found near the nullah.
70	1963		1		Constance Bay, Tirur – A BP man received 5 arrow injuries on his body when he had gone to collect bamboos with his colleagues.
71	3-12-63 0830 hrs		1		Louis Inlet, Mayabunder – Jarawa attacked BP post at about 0830 hrs. A BPC received arrow injuries and 27 arrows were collected.
72	9-12-63		1		Putatang – Forest mazdoor Madu Arvind was killed by Jarawas at his work spot.
73	9-1-64		1		Burmadera, Mayabunder – A member of the Oil & Natural Gas research party was attacked by Jarawas. He received simple injuries.
74	8-1-65 1300 hrs		1		Porlobjig No. 4 – The Jarawas entered Porlobjig No4 Forest camp and killed one member of the camp.
75	18-11-65				Kalsi No. 4 – The-patrolling party of BP camp noticed 2–4 Jarawas while proceeding from camp 4–camp 6. The patrol party fired three rounds; no casualties were reported from either side.
76	10-3-66 1000 hrs				Tirur – The Jarawas shot an arrow that struck the hut of BP outpost Tirur no: 3. Five rounds were fired and the Jarawas ran away.
77	21-4-66		2-1		Pattar nullah, Tirur – Jarawas attacked two Burmese fishermen while they were cooking their food beside Pattar nullah. An arrow hit one of them and both of them fled towards the shore and reported the incident at BP camp no: 4. The Bush Police went to the spot and fired five rounds and the Jarawas fled and the police party returned with the fishermen. On further enquiry a man and woman were reported missing from March 26 th and their bodies were later found in the area. From enquiries it appears the Jarawas killed them.
78	June 1968				Kadamtala – A party of Jarawas entered the settler colony at Kadamtala and in an encounter three were captured. They were brought to Port Blair to the Anthropological Survey and were left back in their area.
79	6-1-69				Foul Bay, Baratang – The Bush Police party headed by an Inspector BP, while on patrolling duty, noticed two Jarawas on the west coast. The Bush Police Inspector landed on the shore and dropped some gifts. They watched from a distance and soon the Jarawas picked up the gifts and disappeared into the jungle.
80	29-1-69				Hanspuri, Mayabunder – Two Bush Police constables were attacked by Jarawas – no casualties were reported.
81	2-3-69		2		Herbertabad, Tirur – Two fuel wood collectors while collecting mangrove wood from the Khari (mangrove), were attacked by Jarawas- one was killed on the spot, the other died in the hospital.
82	21-4-69		1		Jirkatang – Two Bush Policemen and a PWD welder while on their way from camp 6–2 were attacked by Jarawas and severely wounded.
83	21-10-69		1		Pochang – A man of the Forest Protection Force was shot at by the Jarawas at Pochang when he came out of his hut to attend to nature's call, and sustained grievous injuries. The injured was removed to G.B Pant hospital where he completely recovered.
84	28-2-70				Yeratila Jig No. 9, Kadamtala – The Jarawas attacked the BP outpost at YT jig 9, by shooting arrows; when the BP men opened fire the Jarawas ran into the jungle.
85	23-3-70		1		Kausalya Nagar – A mahout of the Ranchi community was attacked by Jarawas and was injured on his back, while in search of his elephant.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
86	31-12-70		2		Spike Island – A party of three persons of Kadamtala Village who had gone to Spike Island to collect sand were attacked by Jarawas. Two were killed on the spot while the third managed to escape.
87	21-1-70		6		Jirkatang – Jarawas shot arrows on labourers who were standing on the PWD truck while passing on the GAT road near Jirkatang No: 8. Arrows injured six laborers.
88	26-3-70		1		Tirur [I-A] outpost – The Jarawas attacked the BP outpost I-A at Tirur and killed one BP man on the spot.
89	20-4-70		1		Yeratil jig No. 9 – The Jarawas attacked the BP outpost at about 1915 hrs and killed one BP man.
90	17-12-71		1		Beach Dear, Jirkatang – A watchman of the Forest Plantation was killed by the Jarawas between 1pm and 3pm and took away one umbrella and a dah.
91	18-12-71		1		Miletilak – A party of three persons were attacked while hunting. One was killed while the others managed to escape.
92	3-1-72		1		Yeratilajig No. 9 – Jarawas attacked a BP man while he was collecting ballies (wooden posts) near his outpost.
93	7-5-72		1		Puna nullah, beyond Jirkatang – A PWD mazdoor was killed by an arrow shot by the Jarawas.
94	16-7-72		1		Dhani nullah/ Kadamtala – A mazdoor of the Forest Dept was injured by Jarawas arrow near his camp.
95	20-12-72		2		Kadamtala – The Jarawas attacked the house of Ganesh Haldar and killed him with his wife in their house.
96	9-3-73		1		Dhani nullah, Jirkatang – The Jarawas attacked a bulldozer belonging to the APWD and killed its driver while he was working on the GAT road.
97	9-4-74		1		Jirkatang – A truck belonging to the Forest Dept was attacked while passing through the GAT road at Jirkatang and injured a laborer.
98	11-4-74		1		Jirkatang – A truck belonging to the APWD was attacked by Jarawas near 86 km of GAT road and injured one BP man who was on duty on the truck.
99	19-4-74		2		Kadamtala – Two villagers of Kadamtala proceeding to Rangat with their cow and were attacked. Arrow injuries were sustained on the right hand and hip.
100	9-2-75		3+1		Flat Island – A fishing party from Mayabunder who had gone to Flat Island to collect shells was attacked by a group of Jarawas. Arrows injured three and the Jarawas kidnapped one person.
101	12-3-75		1		Kadamtala – An APWD truck was attacked near Yeratiljig No: 9 injuring one BP man who was on duty.
102	18-4-75		1		Jirkatang – Jarawas attacked a Bush Police party near 83 km's while escorting PWD workers; One BP man on duty was injured.
103	27-12-75		1		Kadamtala – A forest mazdoor was killed by Jarawas on GAT road near BP post Yeratila jig No9 while returning from work.
104	10-2-76		1		Louis Inlet – The Jarawas attacked the Bush Police outpost and killed one BP man and a watchdog.
105	11-4-76		2		Kadamtala – The Jarawas near Yeratila Jig No: 9 attacked a PWD truck and two laborers on the truck were injured.
106	13-4-77		2		Dhani Nallah (Kadamtala) – A PWD truck was attacked by Jarawas near Yeratila jig No: 9 and killed one labourer on the spot while another died on the way to the hospital.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
107	20-4-77		4		Flat Island (Middle Andaman west coast) – A shell fishing party from Wandoor (South Andaman) of 5 persons who had gone to Flat Island were attacked by Jarawas and 4 of them were killed while one managed to escape.
108	15-10-77		1		Bada Dhani Nullah (Kadamtala) – A Forest mazdoor was attacked by Jarawas and was injured while going to Parlobjig No: 15 from Parlobjig No: 10.
109	3-3-78 0700 hrs		1		Poona Nullah (ATR) – A PWD watch man of Poona Nullah Guest House was attacked by Jarawas and injured in the leg by an arrow while returning after leaving his cows in the jungle.
110	30-3-78 0900hrs		1		Constance Bay (Tirur) – Some mangrove woodcutters were attacked near Constance Bay while cutting wood injuring one of them.
111	12-4-78		2		Jirkatang – Jarawa arrows injured a mahout and a BP man when they went in search of an elephant near the Jirkatang Jungle.
112	18-4-78		3		Colinpur (South Andaman) – 3 Forest mazdoors were killed on the spot by Jarawas while they were clearing the forest.
113	24-10-78 1510 hrs		1		Coffee Plot, Jirkatang – The Jarawas killed an Agriculture Dept. labourer on the spot while another managed to escape.
114	16-11-78 1800 hrs		1		Kesri Dera, Kadamtala – A Forest Head Worker was injured by the Jarawas near Kesri Dera.
115	7-6-79 1630 hrs		1		Spike Island (between S. & M Andaman islands) – A hunting party of 4 persons from Kadamtala Village were attacked by the Jarawas. One person was killed on the spot. The others escaped.
116	24-1-80		1+1		Tirur – A Bush Police party while patrolling the area was attacked by the Jarawas; one man was killed on the spot while another was injured.
117	11-2-80 1400 hrs		1		Bluff Island (between S. & M Andaman islands) – A fishing party from Baratang Island was attacked and one ward attendant from Flat Bay Village dispensary was kidnapped while 3 others managed to escape.
118	21-2-80 0700 hrs		1+1		Beach Dera (Jirkatang) – Jarawas attacked two Forest mazdoors, one was killed on the spot and another was injured by arrows.
119	4-5-80				Billi Nullah, Jirkatang – One Forest Protection Force person was attacked by the Jarawas while he was searching for an elephant in the jungle.
120	18-10-80 1800 hrs		5		Bada Balu, near Tirur – A fishing party of 5 persons were attacked and killed by Jarawa arrows.
121	12-3-81 1345 hrs		1		Jirkatang – The Jarawas shot arrows at a truck, AN 2629 passing near 64km on GAT road. A cleaner of the truck was injured.
122	2-3-81				Kadamtala – The Jarawas shot arrows at a PWD jeep near Bada Dhani nullah.
123	16-10-81				Yeratila jig No. 11 – A patrolling part headed by the Inspector in charge of the BP outpost Kadamtala found a bamboo raft and suspected the presence of Jarawas and fired 2 rounds in the air. On hearing the sounds, the Jarawas shot two arrows and went away from the continuous firing of rounds.
124	18-10-81				Poona Nullah, Jirkatang – A male buffalo was killed by the Jarawas near Poona Nullah while it was grazing near the roadside in the jungle. The body was found pinned with 4 iron blade arrows shot by Jarawas.
125	18-12-81		1		Agriculture Farm, Miletalak – an Agriculture Dept. worker, Shri Kama Sahu was injured at midnight by an arrow shot by Jarawas in his hut while he was sleeping.
126	7-1-82				Beach Dera, Jirkatang – The Jarawa shot an arrow at a bus near beach Dera while it was passing along the GAT road from Bamboo Flat to Jirkatang No. 2.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
127	10-1-82				Tirur – During the night hours a group of Jarawas had shot arrows on some animals tied in a paddy field about 500 meters from the Bush Police Headquarters.
128	13-2-82		1		Kadamtala – Jarawas entered the hut of Shri Rama Swamy a mazdoor of PWD Parlobjig No: 10 and took away 2 degchis (cooking vessels) at about 0730 hrs. Later Jarawas shot arrows on a bus that was going from Kadamtala to Rangat. One person was injured.
129	6-3-82				Kadamtala – Jarawas attacked domestic animals while they were grazing in a paddy field at Yeratila jig No: 9 and injured one bullock and a buffalo.
130	1-9-82		2+3		Bluff Island (between S. & M Andaman Islands) – Jarawas attacked a fishing party while they had halted at night on the island. They killed 3 persons namely, Sylvanus Kispotta, Prasad Minj and Ethwa Beack, on the spot. Two persons namely Ramesh Kullu and Thomas Ekka escaped by swimming into the sea with grievous injuries.
131	4-10-82				Tirur – During the night the Jarawas entered the settlement and shot animals tied in the field, killing one male buffalo. A pregnant buffalo and two cows were injured. They also stole some articles from the house of a settler.
132	7-10-82				Kadamtala – During the night Jarawas entered the village and stole many implements and clothes from the house of a settler.
133	10-11-82				Tirur – Jarawas shot 3 supari arrows at a BP party who landed on shore in search of poachers, but none were injured.
134	30-12-82				Tirur – The presence of Jarawas was reported to have been observed near the house of Shri Munniyandi, R/o Tirur.
135	1-1-83		2		Ferrargunj – The Jarawas entered the village Hazari Bagh and killed Smt. Philomina Toppo and Shri Jhair Ram while they were sleeping in their house; two animals were also injured.
136	16-1-83				Kadamtala – Jarawas attacked and killed an ox near BD nullah.
137	26-1-83				Kadamtala – Jarawas attacked some animals while they were grazing in Yeterjig paddy field. One cow was killed and four other cows were injured.
138	1-8-83		5		Spike Island – A party of 7 poachers from Kadamtala village were attacked at Spike Island; 5 persons were killed and 2 escaped.
139	26-2-84		1		Jirkatang – Jarawas attacked a party of forest workers near Bottle nullah while they were collecting leaves. One Marcus Xess was killed on the spot.
140	22-3-84		1		CD nullah Jirkatang – Jarawas killed one mahout namely Francis Tigga of the Forest Dept near Forest Camp CD nullah while he and two Forest Protection Force personnel were returning to the camp after searching for an elephant that was missing for two days.
141	29-11-84		2		Tirur – Amarus Barwa and Libnus Sorung of the FPF Manpur camp were killed when they had gone hunting in the Jarawa Reserve.
142	18-2-85		1		Jirkatang Poona nullah – Police constable- PC/1651 Appa Rao was injured by arrows shot by Jarawas while he was on duty with the GREF (General Reserve Engineering Force) personnel who were engaged in road building work near Poona nullah.
143	20-3-85		2		Jirkatang No. 6 – Two Forest Dept labourers were killed while they were going from Jirkatang No. 7 to the Range office at Miletalak.
144	8-4-85				Kadamtala – Eight buffaloes were injured by Jarawa arrows.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
145	1-8-85				Tirur – During the night hours Jarawas traversed through Tirur village and shot arrows on one male buffalo and a calf aged one year belonging to Shri Jeethan Maistri R/o Tirur village.
146	19-9-85				Louis Inlet Bay / Mayabunder – Jarawas took away the dinghy of BP LI bay outpost by cutting the rope.
147	26-11-85				Jirkatang – Jarawas entered Jirkatang settlement area and killed 2 dogs and injured one buffalo belonging to C.Mohammed. The following morning one Forest labourer namely Jusef, was injured by an arrow.
148	2-12-85		3		Bluff Island – 3 men from Webi Village were killed at Bluff Island when they had landed to poach. 1 man escaped by swimming out to sea and was picked up by 2 fishermen on their way to Kadamtala.
149	12-12-85				Jirkatang – Some Jarawas were reported to have been noticed by a labourer who had accompanied 21 others who had gone to J/tang No. 9 to collect cane.
150	20-2-86		2		Sonapahar – Jarawas attacked a house at Sonapahar and killed Shri Egnis Kindo and his son, Suprion aged 5 years.
151	26-11-86				Kausalya Nagar – Jarawas entered the settlement and took away 22 bunches of bananas, 1 spade, 1 glass, and agricultural implements from the compounds of settlers' houses.
152	18-12-86				Kadamtala – Jarawas attacked a truck AN 3741 near Dhani nullah on its way from Kadamtala to Rangat.
153	16-1-87				Rangat – Jarawas entered the camp area of Kalsi No: 6 and took away 1 spade and 1 dah.
154	11-3-87				Kadamtala – Jarawas entered Chota Dhani (CD) nullah and took away one labeling machine and some iron materials from the PWD store.
155	16-3-87				Jirkatang No. 7 – Jarawas attacked the hut of Shri Kripal Majhi, Forest Guard and took away an aluminum degchi and two bunches of bananas from the nursery of the camp.
156	17-3-87				Jirkatang No. 7 – Jarawas attacked one truck AN 5339 going from Jirkatang to CD nullah.
157	17-4-87				Kadamtala – Some Jarawas took away the clothes from the verandah of one Labor Shri Jagannarayan.
158	10-4-87				Jirkatang – The Jarawas attacked a truck opposite the Poona nullah guest house
159	14-7-87				Tirur – A group of Jarawas entered the settlement area and shot arrows at a she goat resulting in injury. The goat belonged to one Shri Sathiah and was tied by the side of his house. Two arrows were recovered from the spot.
160	5-11-87				CD (Chota Dhani) nullah – Jarawas entered the forest camp huts and took away 7 degchis, 2 spoons, 2 knives, 1 mug and some clothes from the huts.
161	6-12-87				Tirur – Jarawas shot arrows injuring one buffalo belonging to Shri Gopal Mistri R/o Templemyo.
162	10-2-88				Kadamtala – Jarawas attacked one buffalo and a cow near Mitha Nullah.
163	4-3-88				CD nullah – Jarawas entered the Forest camp and took away a bunch of bananas belonging to the garden on Stawless Tigga.
164	11&12-3-88				Kadamtala – During the night Jarawas attacked animals at Kallu nullah, Mitha nullah, and also beat a sheep of Shri Chinniah of Parlobjig No. 10.
165	11-3-88				Dhani nullah, Kadamtala – Jarawas entered the site office, took away the PWD carpenter's personal belongings and attacked 3 buffaloes causing injury.

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166	18-3-88		1		CD nullah – Jarawas attacked a GREF vehicle at CD nullah when it was proceeding towards Middle Strait injuring one labourer in the vehicle.
167	4-4-88		1		Coffee Plot Jirkatang – Jarawas attacked the house of one Lawrence Surin, pvt. mazdoor and injured him with arrows. Shri Lawrence Surin was evacuated to the hospital where he died at 0400 hrs on 4-4-88.
168	5/6-4-88				Kausalya Nagar – A group of Jarawas entered the settlement and took away clothes and iron articles from the settlers' houses.
169	9-9-88				Kadamtala – Jarawas entered the settlement of Yeterjig No: 11 and took away 19 bunches of bananas from the garden of Shri Rajbisare Kirthanika and 6 bunches from Shri Ramachandran Mondal's garden.
170	4-10-88				Kadamtala – Jarawas entered the settlement of Yetr jig and took away 36 bunches of bananas from the garden of Sukumar Mazumdar and 35 bunches from the garden of Raj Bihari Kirtania.
171	24-10-88				Kadamtala – Jarawas entered the settlement of Kadamtala and took away 17 bunches of bananas from the garden of Kalachand Mistry and 10 bunches from the garden of Narayan Mondal.
172	21&22-10-88		2		Ferrargunj – Jarawas attacked a house at Hazaribagh and killed Shri Anilchanda aged 70 yrs and his wife Kristina aged 65 and also injured one buffalo belonging to John Barla.
173	22-12-88				Tirur – Jarawas entered the settlement and took away bunches of bananas from settlers' gardens.
174	23-2-89		1		Kalsi No. 6 – PC No: 1330, Sahai Topno of the BP camp was killed by arrows while collecting water from a nearby water source.
175	23-3-89				Tirur No. 4 – Jarawas raided the BP camp No: 4 at 0100 hrs and took away 2 bunches of bananas.
176	19-8-89		1		Colinpur – At about 0300 hrs Jarawas attacked one-person baiju Barla of the village and also attacked cattle.
177	23-10-89				Kadamtala – Jarawas entered the settlement and took away 10 bunches of bananas from the garden of Sanyasi Mondal and 3 bunches from Arun Chatrapati's garden.
178	18-12-89				Tirur – Jarawas entered the settlement area and took away 35 bunches of bananas from the kitchen garden of Jagdish Baroi and empty gunny sacks from Saducharans Ojhas and Chinnaiha's huts in the paddy field.
179	14&15-1-90				Kadamtala – In the intervening night Jarawas shot arrows at a buffalo of Shri Gorango Mondal about 300 yards from the residence where the cattle were tied in a paddy field.
180	15-1-90				Miletilak – 4 persons namely Vijay Sippy, R.Sasi, Arvind John and Rattan Lal of Miletilak went fishing in the nullah located near the house of Smt Phool Bai, which is a Jarawa area. On seeing the Jarawas all 4 returned. The Jarawas followed them and came near the house of Smt Phool Bai. They killed 2 goats and injured one calf, and took away some personal belongings of the settlers.
181	16-3-90		3		Jirkatang No. 6 – The Jarawas attacked a truck near Jirkatang no: 6 and injured 3 persons namely Serial Kispotta, Francis Barla, and Sona Hereneux.
182	20-3-90		1		Beach Dera – The Jarawas attacked Shri John, UpaPradhan of Miletilak Village while he was traveling on a scooter on the lonely road near Beach Dera.
183	12-4-90				Kadamtala – The Jarawas entered the settlement and took away some personal belongings of settlers and 55 bunches of bananas from the garden of Gopal Mondal and 35 bunches from Smt Ramoni Kirthanika's garden.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
184	23-4-90		1		CD nullah – The Jarawas attacked near CD nullah quarry and injured one person while searching for his ox.
185	28-4-90		2		RK nullah – The Jarawas attacked a truck while it negotiated a turn while going toward Middle Strait and injured two labourers.
186	3-9-90				CD nullah – At about 2130 hrs Jarawas entered the garden of Shri Hilarus Tirkey mazdoor with the Forest Dept, but did not take away anything.
187	17-9-90				Kadamtala – A group of Jarawas entered the area of Yeterjig and stole 10 bunches of bananas from the garden of Shri Gopal Mondal and 5 bunches from Shri Mitai Mondal's garden.
188	18-2-10-90				Kadamtala – On the intervening night a group of Jarawas entered the settlement area and took away 86 bunches of bananas from the gardens of Shri Raj Bihari Kirthania, Gopal Mondal, Amulya Mistry, Narayan Mistry and Ananda Byapari.
189	5&6-10-90				Tirur – A group of Jarawas crossed a nullah from Follower Point and entered Colinpur and Manpur villages and stole some farm produce and utensils from the houses of Shri Paras Ram Biswas, C. Oreshan, T. Ramu, Belliyar, Kattaswamykan, Dorai Raj, Santiah, Kalicharan Mistry and Kartick Mistry. They also injured a bull belonging to Kartick Mistry in its front leg.
190	16-12-90		1		Tirur – At about 0800 hrs Kumari Panjawaran along with her two brothers C. Kumar and Malai Swami went to graze their cattle in the paddy field. A group of Jarawas came and caught hold of C. Kumar and pushed an arrow into his stomach. He died on the spot.
191	18-12-90		1		Kadamtala – At about 1745 hrs Jarawas attacked and killed one Marcus Toppo, mazdoor of the Forest Dept. r/o Beach Dera, 1 km from the Forest camp.
192	24-12-90				Kadamtala – At about 1745 hrs Jarawas attacked buffaloes at Roshen Tikry killing one and injuring another.
193	18-2-91				Tirur I A – The person in charge of the BP post heard sounds of 'Ayo-Ayo' from the near by jungle and on investigation found a supari (<i>areca catechu</i>) arrow of the Jarawa.
194	25-3-91				Tirur No. 4 – The Jarawas entered the garden of the BP post and took away 6 bunches of bananas.
195	30&31-3-91				Tirur – A group of Jarawas entered the garden of Shri Sadhu, one Manoranjan, Jagdish Baroi, and Haricharan Lal all R/o Tirur and took away about 70 bunches of bananas.
196	2-4-91				Tirur – Shri Kalai Swamy s/o late Ram Sevak r/o Manpur went to his paddy field and found his two buffaloes standing in the paddy field with an arrow on the left leg and in the head of both buffaloes.
197	23&24-4-91				Jirkatang – The Jarawas came at night behind the Ram temple at Jirkatang No. 2 and took away 7 aluminum degchis 1 spade and 2 axes behind the house of APWD labourers.
198	29-5-91		2		Aniket – Jarawas attacked with arrows, a lady Smt Kaliswati W/o Shri Jagat Ram in Anikhet Village while they were sleeping and injured both of them.
199	1-6-91		2	?	CD Nullah – Forest employees while searching for a missing elephant were confronted by a large number of Jarawas at a place located about 12 kms inside the jungle. During the confrontation the Jarawas shot a large number of arrows at the forest men. One FPF guard, Antony Bage received simple injury by an arrow on his left thigh and one John Xalxo received simple laceration on his right hand finger.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
200	24-6-91 1300 hrs		2		Kadamtala – At 1300 hrs while Lower Head Constable 1397 Venkat Swamy and Police were patrolling the north side of their camp by dingy along with one Gopal Mondal they were confronted by a group of Jarawas and arrows were shot at the party. LHC /1397 Venkat Swamy received arrow wounds on his left hand, and Gopal Mondal received injuries on his left thigh.
201	7-8-91		2		Louis Inlet Bay – The Bush Police personnel while conducting repairs to the camp construction of thatched barracks noticed signs of Jarawa movement and soon head constable 1433 received injuries from fish thorns (actually the sting bone of the sting ray – <i>Dasyatis sp.</i>) planted in the path way by Jarawas and found that 3 crowbars and 2 spades were also stolen from the work site.
202	24-9-91				Yeratilajig Kadamtala – At about 2200 hrs a group of Jarawas entered the settlement and stole 50 bunches of bananas belonging to Gopal Mondal and Munda.
203	26&27-9-91				Tirur – On the intervening night of 26/27-9-91 a group of Jarawas entered the coconut garden of Shri Mahanand Biswas and shot arrows at 8 No's goats which were tied in the hut. 7 No's died on the spot while one had an arrow stuck in its stomach. Jarawas also took away banana bunches and coconut from the garden of Shri Mahanand Biswas, Karupusamy and Duraiswamy.
204	20&21-10-91		1		Jirkatang – On the intervening night of 20/21-10-91 Gundali Mahato of BP post Jirkatang No. 2 while coming out of his quarters to attend sentry duty from 0000 hrs to 0300 hrs was attacked by Jarawas at a close distance with one arrow penetrating his right hand and chest. He fell down on the ground and died on the spot.
205	24&25-11-91				Tirur – On the intervening night of 24/25-11-91 an unknown number of Jarawas entered the banana gardens of Shri Jagdish Baroi, Manu Sarkar and Jiten Biswas at Tirur (1A) and took away 12 bunches of bananas. Footprints of Jarawas were noticed in the paddy field towards the coast of Tirur (1A).
206	21-12-91				Hazaribagh, Ferrargunj – During the night of 21-12-91 a group of Jarawas consisting of 35 members on their way from Jirkatang side towards Tusonabad alongside Sona nullah jungle attacked animals tied towards the edge of the jungle at Hazaribagh and killed two bulls each belonging to Athmas Dung-Dung. On cow belonging to Gopal Samadhar, one buffalo belonging to Paritosh Sardhar, and one buffalo belonging to Asharfilall and one cow belonging to Masibegh were injured. Thereafter at about 2115 hrs the Jarawas were seen near the residence of Kamal Singh alias Tobyas Singh.
207	23-12-91				Ferrargunj – At about 1930 hrs Shri Chander Sekharan Chargeman of the STS lodged a report at BP post Hazaribagh that Jarawas pelted stones at the STS mechanical staff engaged in work at the STS garage. A BP party went to the spot and fired 4 rounds in the air to scare away the Jarawas.
208	28&29-12-91				BD Nullah (Bada Dhani nullah) – On the intervening night of 28/29-12-91 the Jarawas attacked killing one buffalo belonging to N.K Moideen r/o Wrightmyo at BD nullah.
209	18-1-92				Ferrargunj, Hazaribagh – On the moonlit night (full moon) one Shri Dhanu Toppo, sarang Forest Dept: r/o Hazaribagh on seeing a group of about 8 Jarawas near his house shouted for help from his house. On hearing this BP personnel of the Hazaribagh BP outpost rushed to the spot and found 7-8 Jarawas near the residence of the said Dhanu Toppo. In order to scare the Jarawas the BP Personnel fired 15 rounds of blanks from a .303 rifle and the Jarawas ran away into the Jungle.
210	20&21-1-92				Yeterjig, Kadamtala – During the intervening night of 20/21-1-92 Jarawas entered the settlement and killed a buffalo and its calf aged about a month old both belonging to tone Satish Mondal. One calf buffalo aged about 2 years belonging to Smt Nalini Mondal was found with arrow injuries on its left leg.

No	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
211	22&23-1-92				Tirur – During the intervening night of 22/23-1-92 about 15 Jarawas entered the settlement and took away personal belongings of residents of the village.
212	22-2-92				BD nullah – A truck, No:AN 3081 of Shri Krishna Moorthy deployed for construction work at BD nullah bridge was returning from Middle Strait along with 4 labourers and BP personnel when it was suddenly attacked by Jarawas. The Bush Police personnel spotted about 30 Jarawas on the hill from where one arrow struck the truck. The BP personnel fired blank .303 rounds to scare Jarawas. On the same day at about 1015 hrs all 3 STS buses with passengers that were passing by were attacked at the same place by the Jarawas and were chased away by firing blank rounds in the air.
213	23/24-3-92				Tirur – During the intervening night of 23/24-3-92 some Jarawas entered the premises of Navdeep Mondal r/o Tirur and took away some household articles from his premises. The BP staff recovered 3 iron head arrows from there leading towards the jungle.
214	7-4-92		1		Dhani nullah – At about 1930 hrs Kumari Barun Ekka D/o Antony Beg, a student of class VIII r/o Putatang Forest camp along with her mother Smt Pauline Topno on a PWD subcontract were attacked by Jarawas with an iron arrow and as a result she sustained simple injuries on her lip.
215	13-4-92				CD nullah – At about 2045 hrs a group of Jarawas entered the kitchen of the BP camp at CD nullah by breaking the rear door and bamboo chatai wall and stole utensils like aluminum degchis, axes, aluminum plates, iron rods, steel spoons, wooden spoons, gunny bags etc. BP personnel on detecting the entry fired 7 blank rounds and scared the Jarawas away. The next day during the search conducted by the BP staff some of the stolen articles abandoned by the Jarawas were recovered from various places along their route. Enquiry conducted after the incident revealed that another group of Jarawas entered the houses of some forest laborers at CD nullah and stole household articles like degchis and dahs and some bananas.
216	17&18-4-92				Tirur – At about 0605 hrs one Rama Krishna Rai s/o Haridas Rai r/o Tirur reported at the BP camp Tirur (HQ) that on the intervening night a group of Jarawas entered his house and stole one used sari, one jacket, and a petty coat before causing injury to one of his goats. They also felled 4 banana trees of his neighbour Jagdish Baroi.
217	17&18-4-92				Kaushalya nagar, Rangat – A group of Jarawas entered the settlement and injured 2 bulls and a cow that were tied in the paddy field of one Sudhir Mondal by arrows.
218	13&14-7-92				Tirur – On the intervening night a group of Jarawas entered the settlement attacked and killed a buffalo and also stole some household articles of some settlers.
219	11&12-10-92				Tirur – A group of Jarawas entered the settlement of Colinpur and attacked and killed one cow belonging to one Shri Mahanando Biswas and stole some utensils of settlers.
230	15&16-10-92				Kadamtala – A group of Jarawas entered the settlement of Yeterjig No: 10 and took away dahs, spades, cotton sari, bag, axes, banana bunches coconuts from the gardens of Shri Krishna Pado s/o late Sarat Biswas Cultivator and Shri NK Biswas.
231	8-11-92				Jirkatang – A group of Jarawas entered the area of Jirkatang No: 7 and took away Dahs, spade, banana bunches and one fishing net. The FPF fired 49 live rounds of a .410 musket in the air to scare the Jarawas away.

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232	8&9-11-92				Jirkatang – A group of Jarawas entered the area and took away Dahs, spade, axe, steel Tiffin carriers, one silver Trishul, brass plate, steel plate and one garland made of 5 rupee coins which was worn around the neck of a Mariama statue and one plate containing small change and a steel basin from the premises of Mariamma Temple at J/Tang No. 2. They also took similar articles from the premises of Muthu raj, s/o Subbiah, Smt Panchavarna, w/o Muthu Karrupan, all r/o Jirkatang No. 2.
233	14&15-11-92				Tirur (IA) – On the intervening night of 14/15-11-92 at about 0300 hrs pc 1512 Sunder Rajan of BP post at IA came outside the post to urinate and saw one Jarawa near the barracks. He immediately ran into the barrack and alerted the sentry and the BP staff who fired 15 rounds blank cartridges in the air to scare the Jarawas. At about 0510 hrs the Jarawas began shooting arrows at the outpost- two arrows entered the barracks. The BP personnel first fired blank rounds and then they fired .410 muskets but the Jarawas did not go away and continued shooting arrows at the BP camp. The BP staff then fired 28 rounds blank cartridges into the air to scare the Jarawas who finally ran away into the jungle.
234	13-11-92				Kausalya Nagar, Rangat – A group of Jarawas entered the village and took away some clothes, 1 axe, 2 spades and one Aluminum kadai from the premises of MR Haldar, S Ganguli, BK Haldar, Usha Haldar, Urmila Haldar and Augustin Lakra.
235	14-12-92				Kadamtala – A group of Jarawas entered the village of Yeterjig and stole some articles from the house of Nalini Mondal.
236	14-12-92				Kadamtala – Shri Arun Gandhi Bisas s/o SN Biswas (40) President Hari Mandir K/tala reported at Outpost K/tala that in the intervening night at about 0200 hrs, his father in-law informed him that while he was returning after attending Bhaja, Kirtan he noticed the door of the Hari mandir Temple was open and articles of worship scattered here and there. On further checking the place he found one aluminum degchi weighing approximately 4/5 kg's missing from the temple, lamp oil was scattered spread on the cement floor and a number of footprints were seen on the oily surface. He suspected this to be the work of Jarawas.
237	11&12-1-93				Santipur, Kadamtala – A group of Jarawas entered Santipur village and stole one cotton sari, one axe, and one aluminum degchi from the house of Shri Ramanand Dali, a cultivator.
238	13-1-93				Jirkatang – A group of Jarawas entered the premises of the Ram mandir Temple and took away one wooden box containing coins, one photograph of Lord Krishna and some Bhajan Kirtan books. During the search the articles of worship were found near the jungle, which were reportedly left by the Jarawas while fleeing. The enquiry further revealed that the Jarawas had taken some clothes and a spade from one Thangappan r/o Miletalak village. The footprints of the Jarawas were found near his house.
239	6-2-93				Ferrargunj – A group of Jarawas entered the settlement and took away aluminum and steel utensils, dah, spade, banana bunches, and some clothes from the house of Shri PL Samadhar, RI Amardas, P Gopal Jyothim Biswas, N Muruganathan, Dasarath Katchap, Kiran Madhu, and Devraj.
240	8-4-93				Miletalak – Shri RVamadevan s/o Shri Raghavan, truck driver APWD came to outpost Miletalak and reported that Jarawa movements have been noticed near the house of one Shri Rattan Singh r/o Miletalak. They also took away some house articles from the premises of Shri AP John, Ramaswamy, Kartic, R Sasi, and P Damodharan, all r/o Miletalak.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
241	23-4-93		1		Phooltala, Kadamtala – While Forest mazdoors were extracting logs from the Phooltala jungle by elephant at about 1030 hrs 3 Jarawas attacked one Shri Jagat Kujur; elephant mahout, while he was sitting on an elephant. They shot arrows on him and he sustained grievous injury on his stomach. He fell down from elephant. He was evacuated to PHC K/Tala.
242	8-5-93				Tirur – At about 2300 hrs 3 Jarawas were seen near the house of Shri Nirupam Das, Panchayat member – he shouted for help and beat the tin in order to alert the villagers of Jarawa presence in the village. The police personnel who were on patrolling duty fired in the air in order to scare the Jarawas, and the Jarawas fled away towards the jungle.
243	2-10-93				Kadamtala – Shri Gopal Mondal reported that some Jarawas stole some household articles in the night.
244	1-11-93				Jirkatang 2 – M. Rajesaundran (33) informed that a group of 20-25 Jarawas entered his house and his neighbours and stole some household articles ie. Knife, degchi, spade, rice etc.
245	7-11-93		5+1		Montgomery Island (Hiran Tikry) – On 3-11-93 6 fishermen of Wandoor Village landed on Montgomery for fishing (They actually landed to poach swiftlet nests [Havabil]), when 20-50 Jarawas surrounded them and killed 5 of them, while the 6 th managed to escape with injuries.
246	12-12-93		1+1		Pather tikry – Two laborers while fishing were attacked by Jarawas. One of them was killed and the other was injured.
247	28-12-93		3		Jirkatang No. 2 – At 2130 hrs a group of Jarawas entered the house of Philomi Kujur and killed her 3 family members and stole some household goods.
248	28-12-93		1		Jirkatang No. 2 – Shri Moidu Appa r/o Nayapuram reported that when he, along with his brother, went to see their father at their paddy field, they found him dead due to arrow injuries.
249	29-1-94		1+1		Tusonabad, Ranchi basti – Two persons went to the nullah and were attacked by Jarawas, due to which one was dead and another got injured. The incident occurred at 0915 hrs.
250	20-4-94		3		Poona nullah – A group of 20-22 Jarawas attacked the trucks AN3661, 3209, 5023, and Car No: WBO23-1519. 3 persons were injured by arrows shot.
251	21-9-94				Colinpur – A group of 10 –12 Jarawas entered the village and stole some household articles belonging to Shri BS Das and also killed a cow.
252	21-10-94				Jirkatang No. 2 – A group of 4-5 Jarawas entered the settlement and stole some household articles from the premises of Shri H Bisan.
253	29-10-94		1+1		Spike Island – 3 fishermen of Wandoor went to Spike Island and saw one foreign boat stuck near the seashore. They boarded the boat and tried to steal the fishing net, in the meanwhile 2 Jarawas attacked with arrows, killing one and injuring another.
254	10-11-94				Putatang – A group of Jarawas entered the house of K Nagaraj and stole household articles.
255	15-11-94		1		Spike Island – Four fishermen of Mamyo village were fishing in the Jarawa reserve area; Jarawas attacked them and one was killed.
256	23-12-94				Colinpur – A group of Jarawas entered the village and stole coconuts worth Rs 1600/- from the house premises of Shri Ashok Kumar and also took away coconuts worth Rs 750/- from the garden of Smt Chandu.
257	18-1-95		1		Miletilak – Solomi went out of her house at about 0800 hrs to attend call of nature and was attacked by Jarawas and injured by arrow shot.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
258	4-2-95		1		Poona nullah – Shri B Lachanna r/o Bakultala sustained arrow injury shot by Jarawas at Poona nullah while he was traveling in the ATR bus (B).
259	19-2-95				Tirur – A group of Jarawas entered the village and stole away some household articles from the premise of Shri Sataiah worth Rs 800.
260	23-3-95				Anikhet – A group of Jarawa entered the house of Shri Gopal Singh and stole some aluminum degchi worth Rs 200/-.
261	18-5-95		1		Tirur No. 2 – Some Jarawas attacked and killed one Pascal Sanga while he was collecting ballies in the Jarawa Reserve area.
262	1-8-95		1		Poona nullah – Kumari Mariyammal (13) d/o Kutten r/o Mayabunder sustained injuries from arrows shot by Jarawas at Poona nullah while she was traveling in the ATR bus (A).
263	22-8-95		1		Poona nullah – Shri Murugesan (25) s/o Shri Alagu sustained injury from arrows shot by Jarawas while he was traveling in ATR bus[C] at Poona nullah.
264	25-8-95				Poona nullah – A group of Jarawas attacked and killed a cow by arrow shot near Poona nullah belonging to Shri B Mani r/o Guptapara.
265	28-8-95				BD nullah – Some Jarawas attacked the labourers of APWD while they were deployed on road repair work at Bada Dhani nullah, but they escaped.
266	13-9-95				Colinpur – In the night a group of Jarawas entered Colinpur Village and took away some clothes from one Shri Kirthania's house and injured one bull by arrows. On the same night the Jarawas consumed 150 coconuts from the orchards of the villagers. They also injured a cow of one Chandran.
267	8-10-95		1		Jirkatang No. 2 – At about 2300 hrs one Mohammed Ali got out from the rear door of his hotel for nature call. Suddenly he was attacked by Jarawas and inflicted dangerous injury.
268	1-11-95		1		Inside Creek No. 3 behind Tirur No. 4 – 3 fishermen of Tirur village were fishing in the Jarawas reserve area. They were attacked by a group of Jarawas due to which one was killed.
269	30-11-95		1		Poona nullah – One Forest Protection Force guard namely Nelson Surin went in search of an elephant at about 0730 hrs in the jungle of Poona nullah and was attacked by 2 Jarawas by arrow and sustained grievous injury on his left arm and belly.
270	2-1-96				Tirur No. 2 – At night a group of Jarawas entered the village and attacked two buffaloes; one, which was injured, and another died.
271	28-1-96		1		Hiran Tikry (Petrie Island) – 3 fishermen went fishing (went hunting deer) in the Jarawa reserve area and they were attacked by Jarawas due to which one of them was killed.
272	3-2-96		1		Tusonabad – At 2045 hrs Sri Umar Ali was sitting in a paddy thatched temporary hut to guard his produce of paddy, and was attacked by Jarawas and was killed on the spot.
273	4-2-96				Ferrargunj – At night a group of Jarawas entered the village and took away some household articles of one Smt Meena and also took away some article from the Ferrargunj Guest House.
274	4-2-96				Caddlegunj – At night a group of Jarawas entered the village and took away some household articles from the house of one Sukhlal Gop and two other villagers.
275	7-2-96				Jirkatang – At 0100 hrs a group of Jarawas entered the settlement area and inflicted injury by arrow to buffalo belonging to Shri Elias Ekka in his paddy field of Jirkatang No: 4 and also took away 5 banana bunches from the garden of one Shri Muttu Karupan.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
276	29-2-96				RK nullah – Some Jarawas attacked the ATR bus C & D near RK nullah while the bus was returning from Middle Strait to Port Blair; but escaped. The duty Constable had to fire a blank round of .303 in the air to scare away the Jarawas.
277	1-3-96		1		Poona nullah – One Forest labourer namely Adaiah deployed in the extraction area of Poona nullah jungle was attacked by Jarawas (10-15) at about 0900 hrs and sustained grievous sharp injuries on his right arm.
278	6-3-96				Baratang Island – A group of Jarawas entered many settlements of the island and stole some household articles.
279	19-3-96				Tam-Tim nullah/ Putatang area (name derived from Toungpiane, Burmese name for <i>Artocarpus chaplasha</i> , the wild Jackfruit tree, and corrupted to Tam-Tim.) – Some Jarawas attacked the laborers of APWD while they were working on a Bandh (Check dam), but all escaped.
280	24-3-96				Poona nullah – A group of Jarawas attacked the 'break down van' of the STS Dept. All escaped.
281	25-3-96				Putatang – A group of Jarawas attacked the road labourers of APWD involved in road repair.
282	28-3-96		3+2		Putatang – A group of 60–70 Jarawas ambushed extraction workers of the Forest Dept during which 2 labourers were killed and 3 were injured by Jarawa arrows. The Jarawas had ambushed the party from 3 sides and took away the musket and extraction equipment of the deceased. (The confrontation lasted for more than an hour with the labourers soon surrounded from all sides- soon after which both Jarawas and Forest employees fled the scene. – pers comm 1998; Alphonse, Forest Camp Officer in 1996, Putatang, FC)
283	31-3-96				Kadamtala – A group of 50–60 Jarawas entered the village and the Market and took away household articles.
284	5-4-96				PhoolTala – A group of 50–60 Jarawas entered the village at night and stole away household articles from the villagers.
285	6-7-96		1		Caddlegunj Jungle – Two persons from the village went hunting in the Sonapahar region of the Jarawa Reserve during which one person Jang Singh was killed while the other person Ram Lall returned the next day.
286	23&24-10-96				Kadamtala – A group of Jarawas entered the village during the intervening night and stole some bunches of bananas, degchis dahs, ballams, cooked food, coconuts and rice from the villagers.
287	28-11-96				Tirur – A group of Jarawas entered the village and stole some bunches of bananas, degchis, clothes, buckets, coconuts and spades from the villagers
288	31-12-96				Jirkatang Plot No. 4 – A group of Jarawas entered the village and killed 3 goats and stole some bunches of bananas.
289	24-2-97				Tirur No. 2 – A group of Jarawas entered the village and stole 30 bunches of bananas.
290	27-1-97				Putatang – A group of Jarawas entered the village at 2230 hrs and took away 4 axes, 2 sabbals (crow bars), 5 spades, 8 kg chini (sugar), 3 aluminum degchi from the store of the Forest dept.
291	25-2-97				Putatang – A group of Jarawas entered the village at 0100 hrs and attacked the employees by throwing stones and shooting arrows, but escaped.
292	25-2-97				Miletilek – A group of Jarawas entered the village and shot 3 goats dead and injured one.
293	17-3-97		1+1		Sippy nullah, Tirur No. 4 – Two persons of Herbertabad Village went fishing in the creek and one was killed while the other was injured by Jarawa arrows.

No.	Date	No. of incidents	Settlers/ Prisoners/ Police killed	Jarawas killed/ captured	Comments
294	23-4-97 2330 hrs		1		Herbertabad – A group of 12–15 Jarawas entered the village and injured one person with iron arrows.
295	23-4-97		1		Tirur – A group of Jarawsa attacked the JPP Tirur No: 1.A (JPP- Jarawa Protection Police) and PC Manando was grievously injured.
296	23-8-97 0100 hrs				Colinpur – A group of Jarawas entered the village and stole bunches of bananas.
297	8-11-97 1100 hrs				Near JPP No. 3 – A group of Jarawas attacked a party of workers from the APWD and JPP when they went to repair the pipeline near JPP No: 3.
298	11-12-97 1530 hrs				Jirkatang No: 8 – A group of Jarawas attacked the APWD workers while they were repairing the road.
299	19-12-97 At night				Jirkatang No. 2 – A group of Jarawas entered the village and stole bunches of bananas.
300	12-12-97 At night				Tirur – A group of 40–50 Jarawas entered the village and stole bunches of bananas and coconuts.
301	30-12-97- 8-1-98		1		Kadamtala – 4 persons went fishing to Mohwa tikry (Flat Island) Jarawa Reserve area and one of them was killed by Jarawas.
302	14-1-98 2330 hrs				Jirkatang No. 2 – A group of 25–30 Jarawas entered the settlement and killed one male goat and took away some bunches of bananas and coconuts.
303	2-2-98 1915 hrs		1		JPP Tirur No. 4 – A group of Jarawas attacked the JPP and grievously injured one PC 1629 Nicholas Surin.
304	5-2-98 0945 hrs		1		Tirur No. 1A – A group of 7–8 Jarawas attacked and killed an old lady Smt Phool Malla Mondal, aged 63 yrs r/o Tirur.
305	6-4-98 1030 hrs				Near Poona nullah Guest house – A group of Jarawas attacked a group of PWD labourers while they were engaged in road repair work. No one was injured.
306	10-2-98 1800 hrs				Anikhet – A group of Jarawas killed a buffalo by arrows.
307	10-2-98 2330 hrs		1		Ferrargunj – A group of Jarawas entered the village and killed one Jogen Chakravarthy at his residence.
308	6-3-98 1000 hrs		1+1		Hump Island – 7 persons from Kadamtala village went fishing in the Jarawa Reserve area by engine dingy and one Halis dingy (row boat) in the creek. While they were fishing Jarawas from the side of the creek attacked them and one Shri Vijay Sarkar was killed and one Shri Krishna Pada haldar was injured by the arrows shot.
309	22-4-98 1130 hrs		1		Jirkatang No. 2 – One Shri Balakrishna of Jirkatang was killed in the forest when he went to collect ballies (wood poles) by a group of Jarawas.
310	11-2-99 0930 hrs				Khurma Dera (Tirur coast) – One Shri Ganesh Maestri went to work in his plantation in Khurma Dera. He was surrounded by a group of 20–25 Jarawas who tried to take his dah from his back, due to which he sustained simple injuries by the knife of a Jarawa.
311	March 0900 hrs				Khurma Dera – A group of Jarawas surrounded a cultivator who had gone to his plantation and made him row them over to North Wandoor coast across Port Mouat Bay, from where they walked down the road and were soon escorted to Manglutan Police station where they were kept for about 4 hours after which they were taken in a police van to be dropped back at the Tirur area from where they were supposed to have come from.

Endnote: No further incidents such as attacks occurred since; only one incident of Jarawas entering a house and the ensuing stampede by the residents and Jarawas in the hut killed a child sleeping on the floor. This occurred at Adajig village, Baratang island in 1999. The local newspapers have such bits of information from time to time.

Annexure VIII

Contact details of Relevant Government Agencies, Non Governmental Organisations and Resources Persons

I Government Organisations

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Executive Secretary
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Anthropological Survey of India
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Archeological Survey of India
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National Remote Sensing Agency (NRSA)
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II Non Governmental Agencies

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Human Rights Law Network

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Bombay Natural History Society (BNHS)

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Annexure IX

Project Concept Note Jarawa Tribal Reserve Dossier

A PROJECT PROPOSAL³²

I Andaman and Nicobar Islands

The Andaman and Nicobar Islands of India are the largest archipelago system in the Bay of Bengal, consisting of 306 islands and 206 rocks and rocky outcrops, and covering a total area of about 8200 sq. kms. The islands are situated about 1000 kms from mainland and less than 10% of their total number inhabited. The islands of the archipelago lie in a crescent that stretches from Cape Negrais of Myanmar to the Banda Arc of Sumatra (Indonesia). The Andamans are considered to be the extensions of the submerged Arakan Yoma mountain range of Myanmar, while the Mentawai Island to the south and south-west of Sumatra are presumed to be a southern continuation of the Nicobars.

Ia) The Great Andaman group of islands is made up of North, Middle and South Andaman Islands, with Baratang Island situated between Middle and South Andaman Islands. Ritchie's Archipelago is a group of islands located to the east of Middle Andaman while the Labyrinth group of islands is situated south west of South Andaman. 90% of the total land area of 6408 sq km of the Andaman group is constituted of reserve forests and protected areas. Nearly 30% of this land is designated as tribal reserves in the name of the four indigenous communities here, the Great Andamanese, the Onge, the Jarawa and the Sentinelese.

Ib) The Nicobar group is spread over an area of 1841 sq. km of which 1542 sq. kms are forests. The Nicobars are separated from the Andamans by the 10 degree channel, a wide gap of 160 km. This group consists of 24 islands in three distinct clusters. The northern group consists of Car Nicobar and Batti Malv; the central or the Nancowry group consists of Tillangchong, Chowra, Teressa, Bompoka, Trinkat, Kamorta, Katchal and Nancowry, and the southern group which consists of the two large islands of Little and Great Nicobar together with Pigeon, Megapode, Kondul, Pilo Milo, Menchal, Teris, Trak and Meroe Islands. The entire Nicobars has been declared a tribal reserve.

The islands are situated in the equatorial belt, are exposed to marine influences and have a tropical climate, which is warm, moist and equitable. The temperature ranges from 18 degree C to 35 degree C and the islands receive rains from both, the North East and the South West monsoons. Average annual rainfall varies ranges from 3,000 to 3,500 mm and humidity varies from 66% to 85%.

II The Jarawa Tribal Reserve

In an effort to protect the forest home of the Jarawa indigenous community the Jarawa Tribal Reserve was created in 1957 under the provisions of the Andaman & Nicobar Protection of Aboriginal Tribes Regulation (ANPATR) – 1956. Over the years the Reserve Area underwent a number of amendments, resulting in a reserve of a little more than a 1000 sq. kms spread over the islands of South and Middle Andaman.

³² September 2005

Prepared on behalf of Kalpavriksh by Pankaj Sekhsaria

Kalpavriksh is an environmental action group that has worked in the Andaman and Nicobar Islands for over a decade in fields of documentation, research, environmental education and legal action aimed towards the protection of the fragile environment and indigenous peoples of the islands.

Pankaj Sekhsaria is signatory on behalf of Kalpavriksh in the above mentioned legal intervention in the Supreme Court of India. He has been close following the developments in the islands since 1998, and is author of the book 'Troubled Islands - Writings on the indigenous peoples and environment of the Andaman & Nicobar Islands'. He is presently, also moderator of a very active electronic discussion group dedicated to the issues of these islands.

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Ila) The Jarawa Tribal Reserve – vital for the survival of the Jarawas

The presence and protection of the tribal reserve has today become key to the survival of the Jarawa community that is made up of only about 260 members. This is only expected to become even more critical in the years to come.

Recent studies of the movement pattern of this nomadic - hunter gatherer community has given an insightful understanding of the Jarawa's notion of space and territory. At the same time the Jarawa Tribal Reserve too has come to be notified and codified as Jarawa territory by law and is seen in this light by the settlers and the non-Jarawa world. By a fortunate coincidence there appears to be a good overlap of the limits of the Jarawa territory, albeit from two different world views and perspectives.

It needs to be borne in mind at the time that this territory is also a seriously contested space – an unfair context in which the Jarawa are a clear and vulnerable minority. It is in the protection and survival of the forests of the tribal reserve alone that the long term survival of the Jarawa can be ensured.

IIf) The Jarawa Tribal Reserve – a vital biodiversity repository in the Andamans

Other recent biological and ecological studies, including satellite mapping and GIS based work has also revealed a fascinating dimension of the forests that comprise the Jarawa Reserve. The 1000 odd sq. kms of the Jarawa Tribal Reserve are the last remaining pristine evergreen rainforests in the Great Andaman group of islands.

Biologists studying a diverse range of plants and animals including butterflies, avifauna, amphibians, and reptiles have independently come to the conclusion that the last of the rich biological diversity in the Andaman islands survives only in the Jarawa Reserve. It is the largest single belt of surviving contiguous rainforest in the island in its pristine form. If the famed biodiversity of these islands is to survive, it becomes evident that the best chance lies in the protection of the Jarawa Tribal Reserve.

This is the two fold, even multiple, significance of the Jarawa Tribal Reserve. What we therefore have here is a rare opportunity of ensuring the survival of an extremely threatened community and at the same time meeting the imperatives of biodiversity conservation.

The Jarawa Tribal Reserve in the Andaman Islands clearly deserves special mention, attention and interest.

III The Jarawa Tribal Reserve Dossier

The above indicated relevance and importance of the Jarawa Reserve is known only to a few people who have been working on these issues for the last few years. In most places the information and understanding is scattered. While the anthropologists continue to work and understand the community itself, biologists have just begun to document and understand the rich biodiversity the Reserve supports. The administrators, on the other hand are driven entirely by another set of concerns and priorities, whether it is creation of the Jarawa Reserve, denotification of its parts, or dealing with the issues and conflicts involving the settlers who live along the forests of the Jarawa and the Jarawa Reserve.

Little if any effort has yet gone into looking at and understanding the Jarawa Tribal Reserve as a single sociological-biological unit of extreme international significance that encompasses within itself fundamental issues of cultural and biological diversity. The proposed Jarawa Tribal Reserve Dossier will be the first attempt at doing precisely this. The dossier will try and put together a range of multidisciplinary inputs and information related to the Jarawa Tribal Reserve, with the aim of facilitating a comprehensive and integrated view and approach of the space that is called the Jarawa Tribal Reserve. It is hoped that the dossier will be the first small step in a process of understanding and working towards a better and more secure future for the Jarawas and the biological diversity of the islands.

The various components that will make up the Jarawa Reserve will include the following:

- (a) The legal concept, boundaries and geography of the Jarawa Tribal Reserve as defined by the ANPATR
- (b) The history of the change in the boundaries of the Jarawa Tribal Reserve and its evolution into what it is at the present
- (c) An attempt to understand from some anthropological investigations the Jarawa concepts of movement and space and notion of their own territory as we can construct and interpret it.
- (d) An initial documentation of the Jarawa's own knowledge and use of the biological resources that are found in their forests
- (e) An articulation and understanding of the perspectives regarding the Jarawa Tribal Reserve of the settler communities that live in areas adjoining the forests.
- (f) Studies and documentation of the biological richness of the forests of the Jarawa Tribal Reserve, including the significance of these forests for biodiversity conservation.
- (g) Recent satellite and GIS based mapping which provides evidence that the Jarawa Reserve Forests are indeed the last remaining pristine rainforests in these islands.
- (h) An attempt will also be made to place the issue of the Jarawa Tribal Reserve within the larger international discussions and possibilities regarding indigenous peoples and biodiversity conservation.
- (i) An indicative list of possible next steps to be taken in the long term interest of the Jarawa community and the biological diversity supported by the forests of the Jarawa Tribal Reserve.

IV Relevance of the project

IVa) UNESCO

The Andaman & Nicobar chain of islands in general and the land, sea and island scape that comprises the Jarawa Tribal Reserve in particular are a very good example of the key and intricate linkage between the indigenous cultural diversity and the biological diversity of the islands. In the islands, in fact, the very physical and cultural survival of the indigenous communities is linked to their environment and its well-being.

Documenting this, understanding its relevance and the adequate propagation of this knowledge in the islands and outside, is something that would fit very well within the overall objectives and framework of the work of UNESCO linked to cultural diversity and human-environment relationships.

IVb) Relevance of the project in relation to Kalpavriksh

Kalpavriksh and the other proposed collaborating organizations have been working in the islands for a long time, and most of these organizations have been and continue to collaborate on a number of projects and initiatives linked to the cultural and biological diversity of the islands.

The compilation of the Jarawa Tribal Reserve Dossier as proposed will significantly contribute to the understanding and value of the work of these organizations, in addition to creating a very useful document to understand issues related to the survival of the Jarawas as also some of the best rainforests in the Andaman Islands.

V) Expected output

The expected output is a Jarawa Tribal Reserve Dossier of about a 100 pages that will include multidisciplinary information as explained above in Section III.

Recommendations



A The biggest challenge in any future work on issues related to the Jarawas and the Jarawa Tribal Reserve is to move towards the full and meaningful participation of the Jarawa Community itself. This has to be done in a manner that is culturally appropriate and sensitive, and where the idea of participation and self-determination is implemented, both, in letter and in spirit.

The recommendations made should not be considered as validating any intervention that has already been made and should not be considered as suggesting or supporting interventions made / suggested for the future. Each proposed intervention should be independently evaluated in the context and time of the specific situation that they are proposed within and should be undertaken only after careful examination and discussion about its appropriateness and relevance.

B Also fundamental to any initiative taken in this context should be recognition and respect of the fundamental rights of the Jarawa community as an indigenous people and in accordance with national and international laws and policies including the relevant United Nations charters on tribal and indigenous peoples.

The following suggestions and recommendations are in response to both the above:

I Ensuring the protection of the entire territory of the Jarawa Reserve and preventing its increasing violation by poachers and others who enter for the extraction of natural resources

- (a) Capacity building needed of the Forest and Police Departments in this context. Some revamping may also be needed, keeping in mind the specific context and needs of the Jarawas and the Jarawa Tribal Reserve
- (b) The Andaman Trunk Road needs to be closed down as per the orders of the Supreme Court dated May 7, 2002
- (c) Marine patrolling capacities need to be augmented to prevent the violation of the Western Coast of the Jarawa Reserve

Rationale: Maintenance of the integrity of the Jarawa Tribal Reserve and preventing the exploitation of the natural resources here are vital for the long term well being of the Jarawas and to ensure conservation of the reserve's biological diversity.

Time frame: Initiatives to be taken immediately, and need to continue in the middle and long term. Constant monitoring and overview needed.

Agencies: A&N Administration, Police, Forest Department, NGOs. Independent monitoring agency needs to be created.

II Restriction of population inflow into the islands from mainland India

Implementation of SC orders dated May 7, 2002 for the creation of an inner line regime for the islands following the completion of the process of issuance of Islanders Id cards

Rationale: The population in Andaman Islands has grown rapidly in the last few decades – to beyond their carrying capacity. This has created huge pressures on the forests and natural resources of the islands and directly on spaces like the Jarawa Tribal Reserve.

Time frame: Initiatives to be taken immediately

Agencies: GoI, A&N Administration

III Overhauling of the Tribal Welfare Machinery in the islands

Also the creation of an independent body charged with the responsibility of research, documentation, policy formulation and implementation on all matters related to the indigenous peoples and the Tribal Reserves in the Islands.

Rationale: The Andaman Adim Jan Jati Vikas Samiti (AAJVS) – the Andaman Tribal Welfare Agency has been the primary agency responsible in matters related to the communities like the Jarawa. The agency has to bear direct responsibility for the deteriorating situation of these communities today and radical overhaul is therefore needed. The working of the body should be governed by principles of accountability and transparency. New ideas and national and international expertise should be accessed for making of policy decisions and their implementation

Time frame: Process to be initiated immediately.

Agencies: Planning Commission, Govt. of India; Tribal Welfare Dept and the AAJVS, A&N Administration; Anthropological Survey of India; Independent researchers and anthropologists.

IV Sensitisation of settler communities living in the vicinity of the Jarawa Tribal Reserve Forests

There is a need for:

- (a) Understanding of settler perceptions of the Jarawas, forests of the reserve and the resources therein.
- (b) Understanding of settler resource use from and dependance on resources from the Jarawa Reserve
- (c) Clear demarcation of the boundary of the reserve and communication of this to the settler communities
- (d) Legal information about the Jarawa Tribal Reserve and consequences of its violation
- (e) Development of channels and materials to communicate to the settler populations:
 - (i) the rights of the Jarawa people;
 - (ii) their history;
 - (iii) need to respect the cultural differences,
 - (iv) their critical dependance on the forest and natural resources to ensure survival and
 - (v) their importance in the larger international community

Rationale: The Jarawa interface with a world other than their own occurs essentially through the settler communities that live along the boundary of the Jarawa Tribal Reserve. Maximum direct pressures on the natural resources of the Jarawas also come from those settlers who are increasingly and illegally entering the reserve forests. The overall disposition of the settler communities towards the Jarawas and their forest reserve and resources will play a very important role in the future situation of the Jarawa in the medium and long term.

Time frame: Initiatives to be taken immediately and will continue in the medium and long term.

Agencies: Planning Commission, Govt. of India; Tribal Welfare Dept and the AAJVS, Education Department, NGOs, independent researchers and anthropologists, Anthropological Survey of India; etc

V Sensitisation

Of:

- (a) Senior administrators and bureaucrats
- (b) Ground staff that is involved with the Jarawa Tribal Reserve, including those from the medical department, police, forest department, AAJVS, and the Anthropological Survey of India

Rationale: Unless the state machinery that is finally and fundamentally responsible for the Jarawas is not oriented and sensitized to the real concerns and issues, there will continue to be serious problems in the formulation of policy and their implementation on the ground.

Time frame: Process to begin immediately with provision for periodic review / updating and adapting as needed by the situation.

VI Creation of relevant tools and mechanisms focused on the language and ethnoscience of the tribal communities for use in the sensitization process

This could be in the form of exhibitions (including traveling exhibitions), films (on the natural and cultural diversity of the JTR), relevant published literature and other such documentation efforts. The main focus should be on schools in the islands.

Agencies: A&N Administration agencies, Schools in the Andamans, AnSI, Educational Research institutions, Design and communication experts and agencies

VII Creation of an independent, quick, reliable, and integrated and multi-disciplinary reporting and communication system

This would ensure that news and information about developments in the JTR and those related to Jarawas (like outbreak of disease, infiltration of poachers, etc.) are immediately reported and that appropriate action can be taken at the earliest.

Rationale: Presently there exists almost no mechanism for the flow of quick and authenticated information from the JTR to the authorities, administrators, and other interested parties, which prevents quick and corrective action.

Time frame: Process of creation of an independent reporting mechanism be initiated immediately.

Agencies: A&N Administration agencies.

VIII Research and documentation of Cultural and Ecological systems within and around the JTR

Setting up state of the art facilities for conducting systematic surveys and gathering, analyzing and representing information and data so gathered.

Rationale: Very little information presently exists on the cultural systems of the Jarawas as also the ecological and biodiversity values of the Jarawa Tribal Reserve. Gathering information and analyzing it is critical to gain a better understanding of the situation on the ground. This in turn will provide for formulation of relevant policy and its implementation. Initiatives to be taken immediately (subject to keeping legal and other provisions in mind).

Time frame: This should be an ongoing process.

Agencies: A&N Administration agencies like the Forest Department, Government Agencies like the ZSI & BSI, Independent NGOs and researchers, Anthropological Survey of India

IX Ensuring self-determination by the Jarawas

Rationale: This has to be the ultimate aim of any process that will involve the Jarawas – to help them negotiate with a rapidly changing, predatory world that exists around them. Unless this is done, the future can only be considered grim. Lessons need to be learnt from the experiences of the Onge and the Great Andamanese .

This could begin with a meaningful interface with the Jarawas that includes among others:

- (a) Creation of documentation, which could show the Jarawas the state of other Andaman islanders, so they could get some idea of what are the possibilities and faultlines in the course of the future, unless they become the stakeholders of the JTR jointly managed by outsiders.
- (b) Creation of documentation of and for the Jarawas; one of the most important contributions could be to show the Jarawas what image/s and information the outside world has of them.

A selected bibliography



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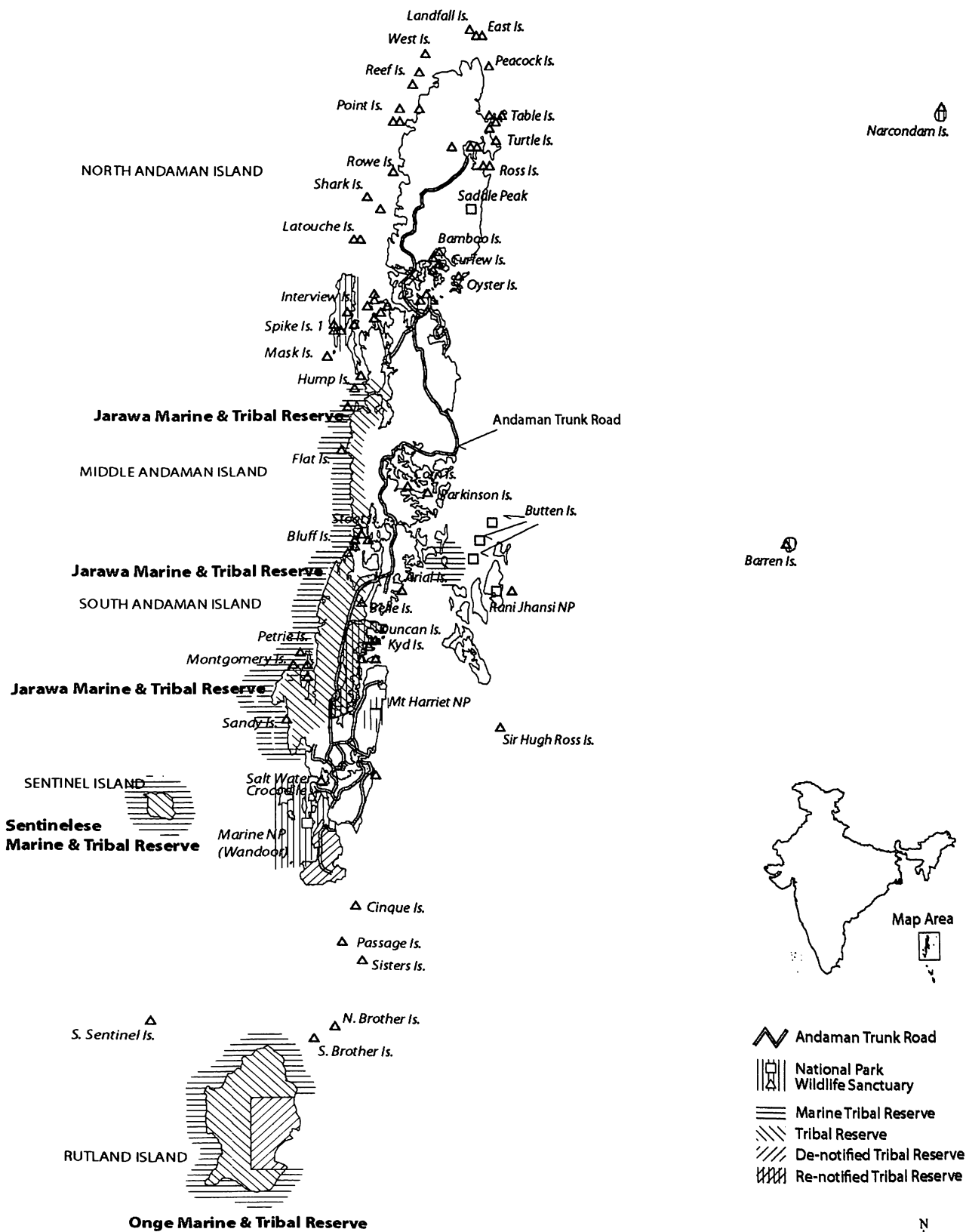
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Maps

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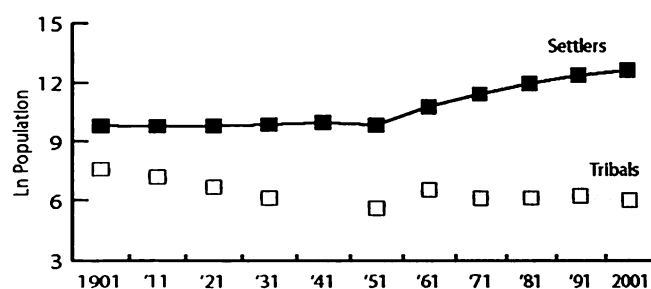




MAP I: PROTECTED AREAS & TRIBAL RESERVES
Andaman Islands

Source I Andaman and Nicobar Protection of Aboriginal Tribes Regulation (ANPATR) - 1956;
Source II World Database on Protected Areas, 2006

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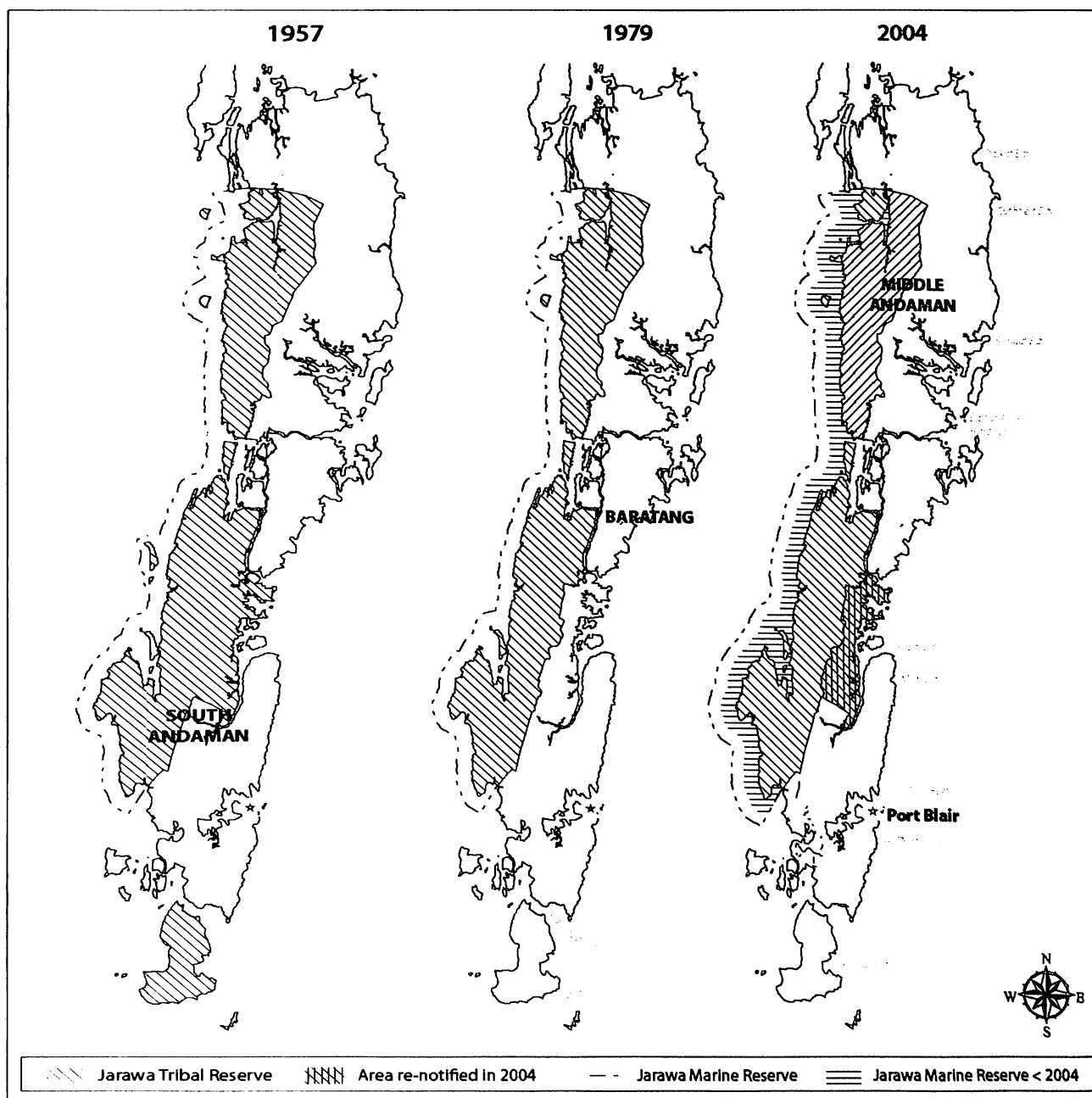
Year	Settlers	Tribals
1901	18,138	1,998
1911	17,641	1,313
1921	17,814	788
1931	19,149	459
1941	21,163	NA
1951	18,958	273
1961	48,533	699
1971	92,967	464
1981	157,945	469
1991	240,386	518
2001	311,763	420

FIG I: CHANGES IN (LOG) POPULATION OF TRIBALS AND SETTLERS

Decadal Census, 1901 to 2001 (Actual estimates in the table)

Estimates for Andaman Islands only. Tribal estimates for Jarawa, Onge, Andamanese & Sentilese.

Sources: Census of India and Pandit, TN. (1990), *The Sentinelese*, Anthropological Survey of India, Seagull Books, Calcutta



MAP III: CHANGES IN JARAWA TRIBAL RESERVE BOUNDARY

1957, 1979 and 2004

Source: Andaman and Nicobar Protection of Aboriginal Tribes Regulation (ANPATR) - 1956

NOT TO SCALE



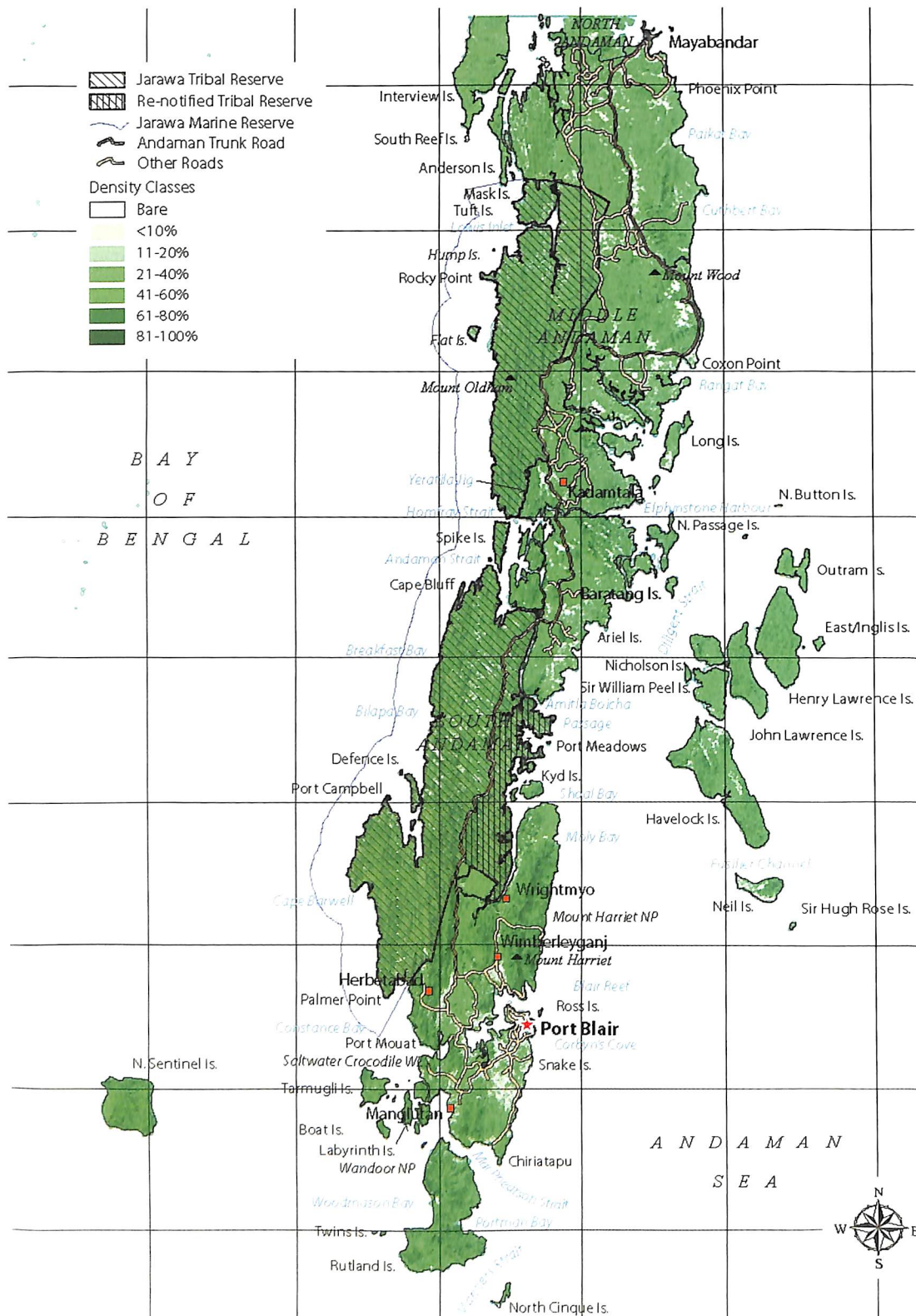
MAP IV: LAND USE MAP

Forest Administrative Boundaries

Source: Forest Administrative Maps in Singh, S. 2002. Report of the Commission set up under orders of the Supreme Court on the Status of Forests and other Allied matters in Andaman and Nicobar Islands, Volume 1

NOT TO SCALE



**MAP VIa: VEGETATION DENSITY**

Normalized Differential Vegetation Index

Source: LANDSAT ETM+ imagery dated 7th February, 2000

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MAP VIb: LAND COVER CLASSIFICATION
National Remote Sensing Agency

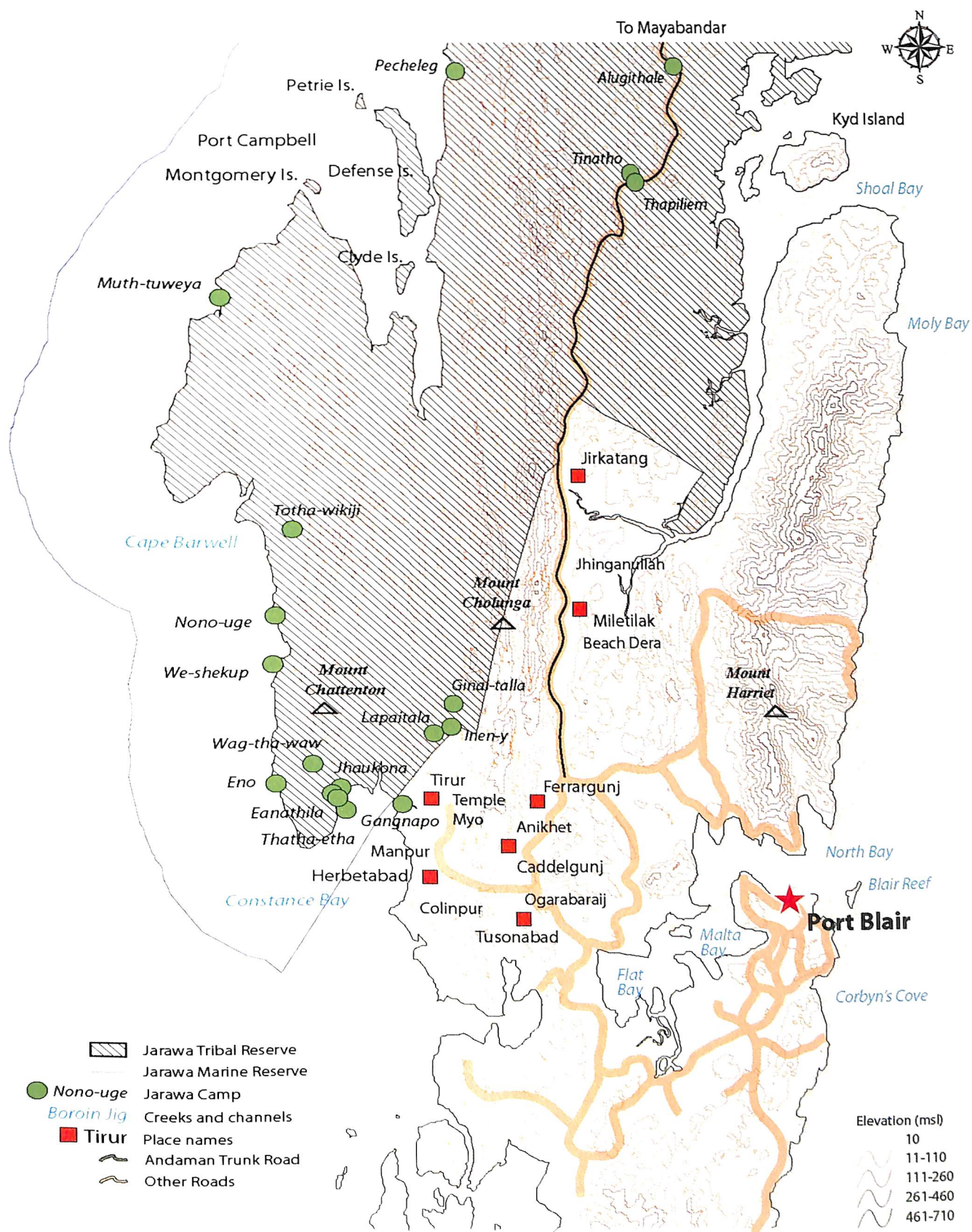
Source: NRSA (2003), Biodiversity Characterization at Landscape Level

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**MAP VIc: VEGETATION****Major Types**

Source: LANDSAT ETM+ imagery dated 7th February, 2000

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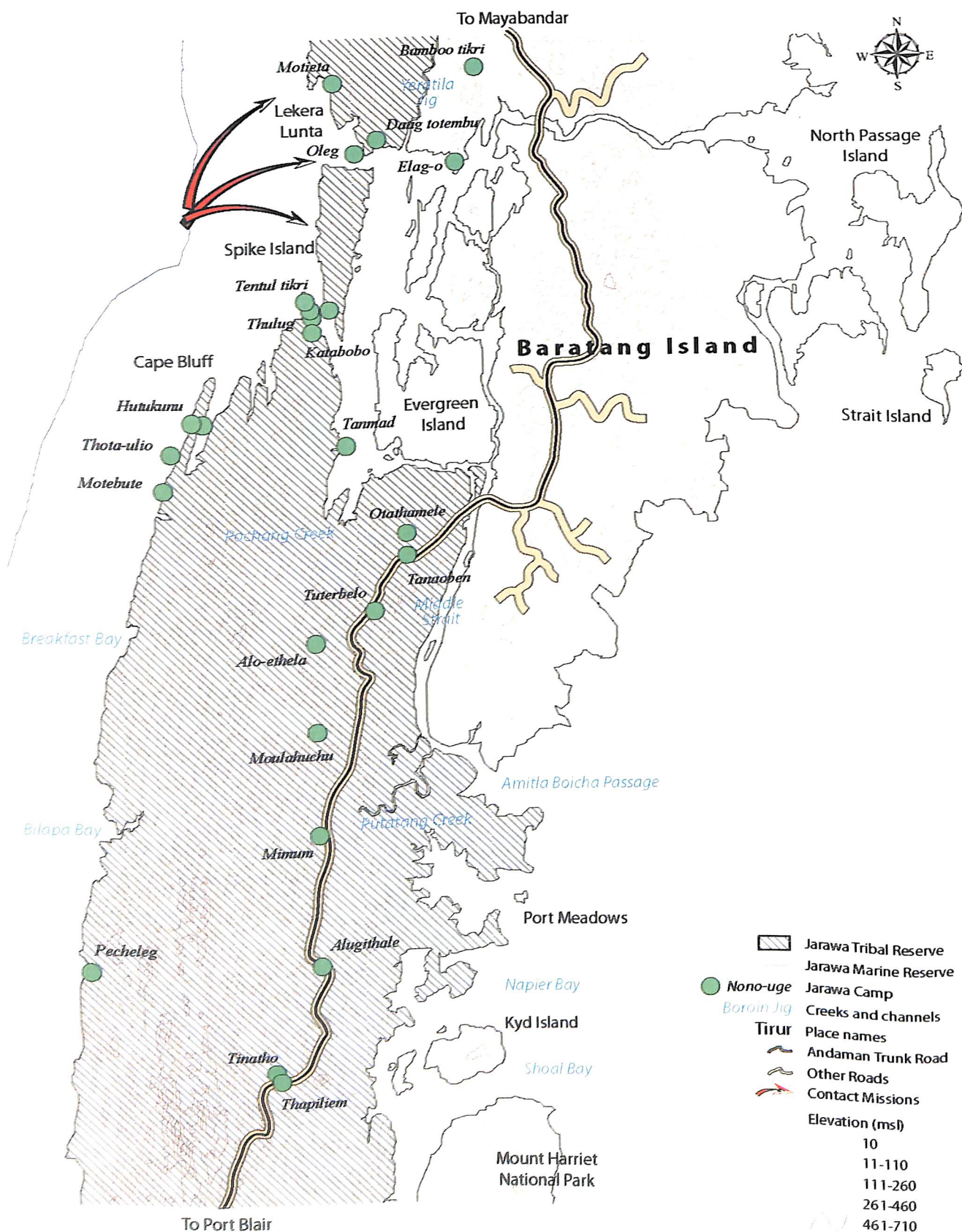


MAP VIIa: SOUTH PART OF SOUTH ANDAMAN ISLAND

JARAWA CAMPSITES RECORDED BY ASI, ZSI & BSI

Source: Anthropological, Zoological and Botanical Surveys of India as reported in the 2003 Expert Committee Report submitted to the Kolkata High Court.

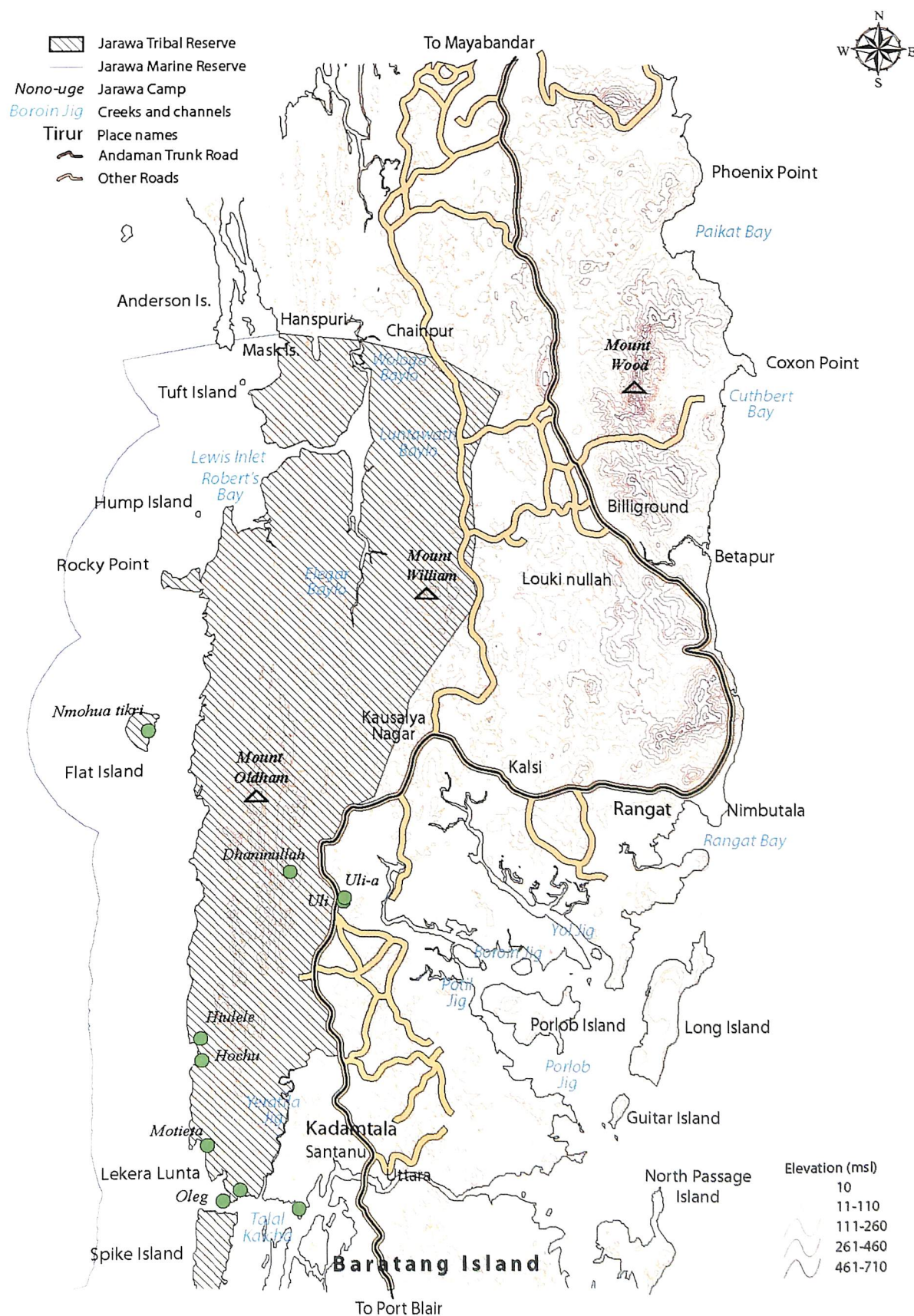
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MAP VIIb: NORTH PART OF SOUTH ANDAMAN ISLAND
JARAWA CAMPSITES RECORDED BY ASI, ZSI & BSI

Source: Anthropological, Zoological and Botanical Surveys of India as reported in the 2003 Expert Committee Report submitted to the Kolkata High Court.

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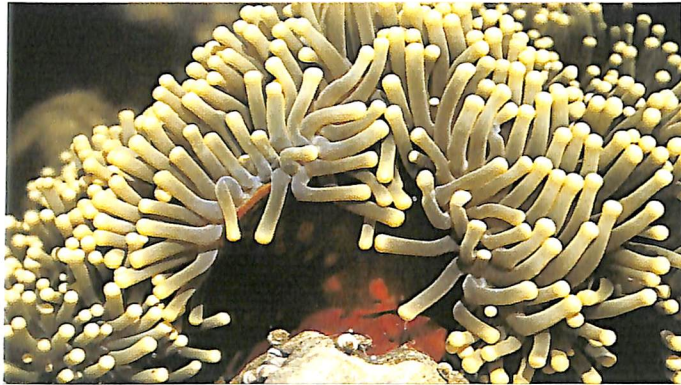


MAP VIIc: MIDDLE ANDAMAN ISLAND
JARAWA CAMPSITES RECORDED BY ASI, ZSI & BSI

Source: Anthropological, Zoological and Botanical Surveys of India as reported in the 2003 Expert Committee Report submitted to the Kolkata High Court.

NOT TO SCALE

Animal & plant biodiversities



Sea anemone



Giant clam



Mangroves in a creek in the Jarawa Reserve



Mangroves show a wide range of adaptations like these breathing roots (*pneumatophores*) that are emergent and have special air channels



Forest fire at Wandoor: large areas of forests were cleared in this manner in the past for creating settlements and plantations



Andaman clawed gecko: one of the many endemics found in the Andaman Islands



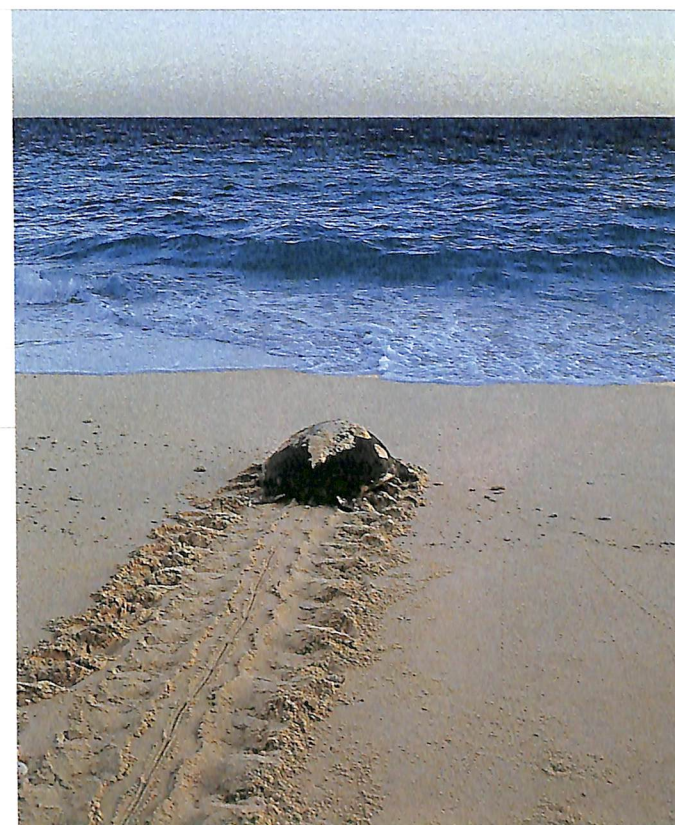
Forest canopy



Andaman pit viper



Rainforest at Wandoor



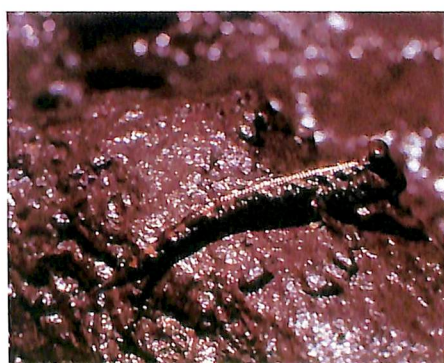
Green sea turtle



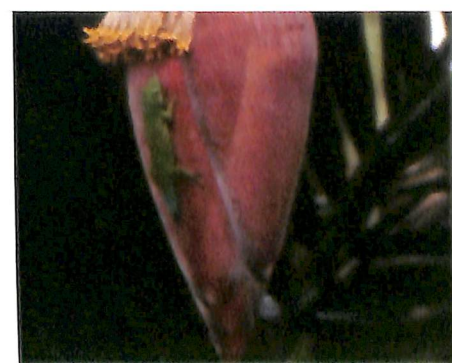
Leopard eel



Forest agamid



Mudskipper



Andaman day gecko

Economic activities



Plywood manufacture was once the most prominent economic activity in the islands; the last of the mills shut down in the late 90s



Timber yard on Little Andaman Island, 1998: logging here, in the home of the Onge tribe, was stopped in 2001 following orders of the Supreme Court of India



Rotting timber



Timber raft, Baratang: The traditional method of towing timber from the forests to plywood and saw mills



Hut Bay timber yard

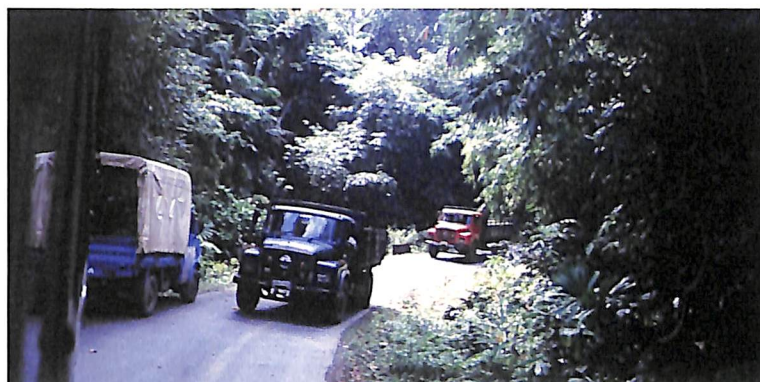


Tourists at Baratang on the edge of the Jarawa Reserve

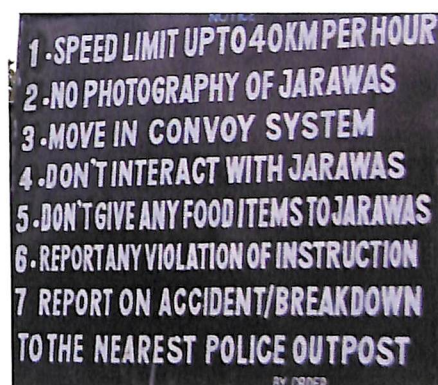


Aerial view of Port Blair: Ross Island, on the right, was the administrative headquarters during the British rule

The JTR & ATR



Traffic on the ATR



ATR rules



Traffic on the ATR



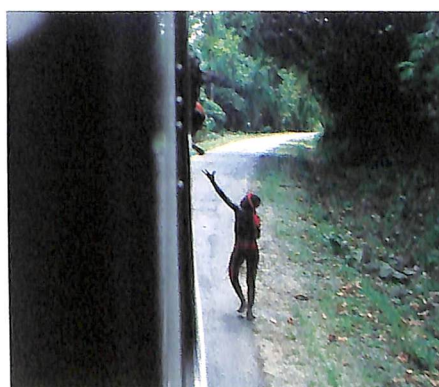
ATR board at Jirkatang



Settlement at Jirkatang



On the ATR: ferry crossing the creek at Middle Straight



The driver of a passenger bus hands over food items (biscuits) to a young Jarawa woman on the Andaman Trunk Road (ATR); in 2002 India's Supreme Court ordered that this part of the road be closed, but the local administration has not yet implemented it

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One of the most distinctive, but relatively little known features of the Andaman Islands is an entity of land and sea called the Jarawa Tribal Reserve (JTR) – a space legally notified in the name and, arguably, the interests of the Jarawa tribal community. Until recently, the Jarawa were hostile to outsiders. As a result, those who might otherwise have exploited the resources of the reserve – poachers, settlers and developers – were denied access. However, the Jarawa have now chosen to cease hostilities, and the borders of the Jarawa Tribal Reserve have become permeable to intrusion, even though legally off limits to outsiders. The multiple changes that have ensued have enormous ramifications for both the Jarawa people and their lands. As much information relating to the Jarawa and the Reserve remains scattered and difficult to access, this Dossier has undertaken to bring together within the covers of one publication, information and views about the JTR emanating from a number of distinct disciplines. Indeed, one cannot comprehend the complex interactions between the biological and cultural diversity of this unique people and place without adopting an interdisciplinary perspective.



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